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THE BUSINESS PROSPECT.

THE new year opens under more favorable auspices than did the year which has just closed. Twelve months ago the topic of foremost interest in the business world was the financial crisis which then had lately developed in the United States, the effects of which were still acute. Some large banks had closed their doors, there was a general limiting of business credits, and factories of nearly every kind were closed or else working on reduced schedules. The ultimate effect was reflected in every civilized country—in international trade, in stock exchange transactions, in affairs as remote as those of rubber planting in Ceylon or the public finances of the Amazon states. The india-rubber trade was affected, of course, so close is its relation to nearly every form of industry; on account of the reduced demand for rubber goods the market prices of crude rubber fell to the lowest figures for many years.

The American people are ever optimistic, however, and although at the beginning of 1908 the limits of the existing trouble could not be foreseen, it was regarded by leaders in business not as a "panic" but rather as a temporary flurry, the effects of which might even prove beneficial by teaching caution in some quarters. The history of the year has justified the optimists, and gives reason for hope of continued improvement during the

coming year. Moreover it has given the world at large new evidence of the solvency of this country and its capacity to withstand financial shocks. It cannot be said that business as a whole has resumed the status which existed before the depression, but then the volume of production had reached figures which might be described as above normal. At least the country is prosperous now, and fears of further trouble have vanished.

It may be added that nearly all the large banks, the closing of which, late in 1907, alarmed the public, have resumed business, in most cases without involving loss to shareholders or depositors. There were a few institutions, however, which met a different fate, for their managers have had to face criminal proceedings, and at least one is in prison. The elimination of unsound banks is a cause for congratulation, and the public confidence in the banking system is strengthened rather than weakened by the events of the year. Some very important corporations, industrial and otherwise, which were forced to apply for receiverships, have been reorganized, under the same management as before, and apparently have good prospects. An important automobile concern, for example, which failed for a very large sum, has paid its claims in full, with interest added, and many other indications might be given of recovery in business circles.

The advance in crude rubber prices is in itself a sign of improving business. The rubber factories are likely to be kept busy in the near future to supply goods required by large consumers, who for awhile restricted their buying. It is true that the rubber footwear trade has been confronted by a lack of snow, but there is a possibility that this shortage may be made up before spring comes. The rubber tire trade, however, has been active all year, showing no ill effects from the depression.

IT MUST BE CRUDE RUBBER.

A QUESTION that has arisen in the customs administration at New York and has been referred to THE INDIA RUBBER WORLD, relates to a new class of rubber which of late has come into this port in considerable quantities. We have been asked whether this is a manufactured product. The rubber in question is imported in regularly shaped pieces—sheets, for example—having the appearance of having been fashioned by the use of machinery, besides which some of them are stamped with what seem to be the marks of a manufactory. If this should be a manufactured product, the zealous customs employees would feel obliged to impose a duty on its importation—hence this investigation.

We can see no reason why the particular product referred to should not come under the classification "crude india-rubber" (in paragraph 579 of the Tariff act), quite as much as any other rubber imported now or in the past. The "Century Dictionary" defines manufacturing as "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities,

properties, or combinations, whether by hand labor or by machinery." No matter in what shape rubber may be marketed, or by what means it may have been shaped, it is not an "article for use" until it has undergone certain manipulations which are lacking in the case of the recent imports at New York.

The difference in this case from others is that the primitive methods of preparing rubber from latex in the forest have been supplanted on the Ceylon and Malaya plantations with mechanical processes. The result is a cleaner rubber and one more desired by manufacturers for certain purposes. But the rubber as imported has no commercial value except as a raw material for use in making the rubber goods of commerce. Every essential process in rubber manufacture must be applied to the mechanically pressed rubber from plantations, the same as to forest rubber which has been prepared without the aid of machinery. The Ceylon product, therefore, must be "crude rubber."

PLANTATION RUBBER YIELDS.

THE latest mail advices to hand at this writing report the shipment from Ceylon and Malaya, during something less than eleven months of this year, of 3,401,734 pounds of plantation rubber. The figure for the corresponding period of 1907 was 1,935,103 pounds, and for the preceding year 908,965 pounds. Five years ago the amount was almost *nil*. The rapid growth in the volume of shipments evidently is due (1) to the increasing number of tappable trees, and (2) to an increased annual yield from those trees which have now been tapped for three or four seasons. It seems worth while to emphasize, in this connection, that in the mass of information that has come from the *Hevea* planting region of the Far East—reports so detailed as almost to suggest that every individual rubber tree has been scrutinized—no hint has appeared that one tree of suitable size has failed to yield some rubber, or that any tree, once tapped, has failed to yield at subsequent tapplings.

Thus far it has not been possible, however, to fix upon a definite minimum yield to be expected reasonably from a cultivated rubber tree, of any given age or size. But this is hardly essential. Is there a fixed law of yield of tea or coffee plantations, or of wheat or corn, or of grapes or pears? It is enough if, generally, the product per acre, or for a whole estate, affords a profit. The figures given above show that cultivated trees do yield rubber, and details constantly coming forward indicate an average production of 2 or 3 pounds per tree over considerable areas, taking young and old trees together. In addition to the data on this subject on another page of this issue, it may be noted that Mr. J. B. Carruthers estimates that *all* the rubber trees tapped in Malaya in 1907 yielded an average of 1 pound 12 ounces; the trees included in Perak alone yielded 2 pounds 1 ounce and those in Negri Sembilan 2 pounds 7 ounces. These are

not exceptional yields, but the figures relate to upwards of 1,300,000 trees.

We might pause here to consider the ultimate rubber production of Malaya, where, according to Mr. Carruthers's figures, the rubber planted to date—nearly all within three years—covers about 280 square miles of territory. In this great forest formed by the hand of man it is estimated that there are 97,558,440 rubber trees, planted generally at what is intended to be permanent distances apart. If all these eventually should give a yearly average of 2 pounds, the result would vastly exceed the world's present total production of rubber. In none of these estimates, by the way, is any account taken of Ceylon or the Dutch Indies, or of any part of America or Africa where rubber has been planted.

But our interest at this time is confined to the present yield of plantation rubber, and it appears abundantly established that the yield is ample for present profits on a scale beyond what is usual in most branches of agriculture. We must not leave the subject, however, without pointing out that all the figures used in this connection bear solely upon the cultivation of one rubber species—*Hevea*—in one part of the world. The study of other species, and under other conditions, remains to be carried to a practical conclusion.

DEVELOPMENT OF THE AMAZON.

THE company referred to on another page as having been formed to execute greatly needed improvement works at the port of Pará, through which the great supply of Amazon rubber passes and at which arrives the miscellaneous assortment of the world's products which pay for this rubber, is composed of men of responsibility and distinction in the development of enterprises in new countries, which the Amazon region distinctly is. The merit of their proposition is evident by the sale of their bonds in the leading *bourses* of the world, though this may count less with some people than the success of the members of the directory in such enterprises as the Canadian Pacific Railway, the United Fruit Co., and certain important undertakings in South America.

It is impossible that the southern half of this hemisphere should always remain undeveloped. It happens that the development of the Amazon states naturally proceeds along the lines of least resistance by handling its most valuable natural product—rubber. In order to handle rubber economically and to get into the rubber interior the manufactures of North America and Europe it is necessary to make it possible for ships to approach nearer to the city of Pará. What is proposed to be done there has been done on an immense scale at Liverpool and in New York, and why not at Pará? The work is slower at Pará because of a smaller volume of traffic up to date, and the fact that the owners of capital are not generally informed as to the possibilities of commercial develop-

ment there. It is not a chimerical proposition at all. It is to the interest of every user of a rubber tire, to every railroad company—to every consumer of rubber in any form—that the cost of rubber be minimized, and one important item involves the expense of handling freight at the mouth of the Amazon.

Considered alone, the improvement of the port of Pará does not measure with the great engineering works of the world, yet it is of distinct importance and interest to the rubber trade on account of the fact that more than half the crude rubber entering into consumption of the world is to-day "lightered" from Pará *trapiches* into steamers for New York and Europe. There is beyond this, however, the possibility that allied capitalistic interests may go much further and combine with this assured improvement at Pará other large works of utility that likewise have a bearing upon commerce in rubber. Prior to the beginning of the Pará enterprise something had been done at Manáos to facilitate the shipment of rubber, and last of all is the projected Madeira-Mamoré railway, which now appears to be a certainty. With the Pará and Manáos harbor improvements facilitating ocean shipments, and the circumventing of the falls of the Madeira accomplished, and all working in concert—through an understanding between the investors—isn't it possible that the handling of rubber between forest and factory may be materially cheapened?

The dream has been indulged in many times that by "bottling up the Amazon" the Pará rubber supply could be so monopolized as to enable a few men to put their own price upon the raw material. But this would be against public policy, and could not long prevail. However, the mere suggestion of the matter has done more than any other one thing to stimulate the planting of rubber in Asia. The intelligent investment of capital does not depend for success upon monopoly, but upon promoting permanently the general good, and this seems to afford a sound basis for the grouping of such interests as have been mentioned here in connection with the rubber region. We do not know that this suggestion has been put into words before, and it may be long before the idea here outlined is realized, but its realization would seem as natural as has been the development of the system whereby wheat from the western United States is so cheaply placed in the hands of consumers beyond the Atlantic. The prospect may not be pleasing to the rubber planting interests, but the latter will have ample time in which to strengthen their position before the possibilities of the Amazon have been taken advantage of.

THE RECENT SUCCESSFUL BICYCLE SHOW in London—the thirty-second annual "Stanley" show—indicates an interest in cycling among Britishers in striking contrast with anything that obtains in the United States. Almost simultaneous with the London show a "six days' bicycle race" attracted thousands daily and nightly to Madison Square Garden in New York, but this was a "sporting" event, with the wheel merely as an incident. It was run solely for the benefit of the promoters, and had no beneficial effect upon any legitimate cycling interest—not even as a healthful

sport. The zenith of the bicycle trade in this country occurred in 1896, when the net earnings of the concerns which later were combined in the \$40,000,000 American Bicycle Co. are reported to have been \$7,763,460.39. Though the directorate of the big company was composed of the men who had built up this great industry, they were unable to maintain it when the popular interest in cycling began to decline. All that saved the corporation from absolute failure was the absorption of its depreciated assets by a former leader in the bicycle industry, who formed a new company, on a vastly smaller scale, and now that has had to undergo reorganization, with a view to the manufacture principally of automobiles. Of course the bicycle has not disappeared altogether from American life, and there are even signs of a revival of the cycling interest, in the renewed efforts of rubber manufacturers to market bicycle tires.

THE CANADIAN RUBBER TRADE for the last fiscal year, the first months of which were concurrent with the late financial depression in the United States, on the whole, made a good showing. From the details on another page, it will be seen that the exports of rubber manufactures were larger than the average, and were widely distributed. At the same time, the imports of such goods were larger than for a few years past, though smaller than five years ago. The recent increase may be due to a growing use of rubber goods, involving a demand for special articles which the Canadian factories are not in a position to supply as economically as some concerns elsewhere. It is due to some such consideration that the importation of rubber goods into the United States continues to increase. The imports of raw materials into the Dominion for the last fiscal year showed a marked increase.

THE NUMBER OF PATENTS ISSUED in the United States during the last fiscal year was greater than in any previous twelve months, despite the occurrence meanwhile of what a good many people termed "hard times," which indicates that inventors work whether other people do or not. It is of interest to note that patents continue to be issued for novelties in the rubber trade at a rate which doubtless would surprise Goodyear or Hancock were they now alive, for those gentlemen departed this life with the idea that the whole sum and substance of endeavor in rubber goods was wrapped up in their discoveries.

FRANCE IS THE ONLY COUNTRY manufacturing rubber goods from which the imports of such goods into the United States exceed in value our exports to the same country. Last year we bought from France \$539,480 worth and sold her only \$230,334, showing an "adverse balance" of \$309,146. Without an opportunity for close analysis of the figures, it seems safe to assume that French tires are still coming into the American market in considerable quantities.

THE EDITOR OF THE INDIA RUBBER WORLD is in receipt of a very lengthy article on the "Beginnings of India-rubber," from the pen of an Englishman—one who calls himself a student. He speaks of the late Charles Goodyear as "Mr. Goodyear of Rhode Island, Connecticut." As a matter of suggestion we wish to inform him that Rhode Island is no longer the capital of Connecticut.

IF THE CITY OF NEW YORK, which already owns 231 automobiles for the use of its officials, should go much further in the ownership of these swift vehicles, we need not be surprised to see a municipal tire factory established to supply their rubber equipment.

THE WEATHER LATELY has been as favorable for the motor and tire trade as it has been unfavorable for rubber shoes.

A RUBBER TESTING COMMITTEE.

SO much interest has developed in Europe regarding the standardizing of methods for rubber testing, both physical and chemical, that it has resulted in the formation of an International Committee, of which the following is a partial list. The list of names for all countries except the United States is, for the present, complete, but the full American committee will be completed later.

ENGLAND.

Dr. DAVID SPENCE, University College, Bristol.
 Dr. JOSEPH TORREY, Analytical chemist, Liverpool.
 Mr. HERBERT WRIGHT, A. B. C. S., F. L. S., Editor of *The India-Rubber Journal*, London, Secretary.
 Dr. PHILIP SCHIDROWITZ, F. C. S., Chancery Lane, London.

FRANCE.

M. PIERRE BREUIL, Engineer; editor *Le Caoutchouc et la Gutta-Percha*, 49 Rue des Vinaigriers, Paris, Secretary.
 M. VICTOR HENRY, Professor a la Sorbonne, Paris.
 M. BERTRAND, Professor a l'Institut Pasteur, Paris.

GERMANY.

Professor Dr. O. WARBURG, Editor *Der Tröpenpflanzer*.
 Dr. F. FRANK, Berlin.
 Dr. R. WEIL, Continental Caoutchouc und Guttapercha Cie., Hanover.
 Dr. F. KUHLEMANN, Teaterstrasse, Hanover.
 Dr. W. THIEL, Alsterdamm 2, Hamburg.

AUSTRIA.

Dr. HERBST, Secretary.

UNITED STATES.

Mr. H. C. PEARSON, Editor of *THE INDIA RUBBER WORLD*, No. 395 Broadway, New York, Secretary.

CEYLON.

Mr. M. KELWAY BAMBER, Government analytical chemist, Colombo, Secretary.

HOLLAND.

Professor Dr. S. HOOGEWERFF WASSENAAR, Delft.
 Professor Dr. G. VAN ITERSOM, Delft.
 Dr. M. GRESHOFF, Director of the Colonial Museum, Haarlem.
 M. MERENS, Rubber manufacturer, Haarlem.
 Mr. A. H. BERKHOUT, Wageningen (late conservator of forests in Java), General Secretary.
 Dr. TROMP DE HAAS, Buitenzorg, Java.

EXTRACTIONS OF CRUDE RUBBER.

TO THE EDITOR OF THE INDIA RUBBER WORLD: We all have used resin, ordinary pine resin and other more expensive ones, harder and softer ones, in rubber mixings for various purposes. Being a very near relation to rubber, resins have a greater and are a greater affinity to the rubber molecule than for instance zinc oxide or any other mineral oxides, chalk, oils, etc.

Ergo, used and applied in moderation, resins are useful compounding ingredients. The aim of many processes has been to extract resins. Extractions mean the use of solvents and there is not a process using solvents which has not proved disastrous. Solvents can only be recovered partly. They often affect the quality of the extracted gum. But why extract something which may be made useful by ordinary methods? For instance, let us take the percentage of rubber in Pontianak as 15 per cent., resinous contents 85 per cent. Now the rubber required in a mixing shall have a tensile strength of a rubber containing 15 per cent. of resins only.

Make a combination of crude rubbers giving the required average percentage of resins. All one needs to know is the exact percentage of resin in each rubber; the rest is simple. Such a combination would of course contain a proportionate amount of Pontianak in its native state and other rubbers to match.

I have come to the conclusion that one of the most important factors in working qualities of a mixing is the proper blending of crude rubbers, not only because one obtains a fixed percentage of resins on a reliable basis, but because there is a distinct reaction of one resinous compound upon another, causing practical results of value.

There is of course the ideal condition of affairs still to be worked upon—that is, resinous compounds being so closely re-

lated to rubber may some day lose their identity and become more like their twin brother by a process which would result in imitating nature to some extent. She does it to-day successfully.

How far scientific research work has enabled us to get is represented by some of the new rubber products on the market.

New York, December 8, 1908.

H. D.

RUBBERED FABRICS FOR BALLOONS.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Referring to your inquiry, I have no printed matter at hand relating to the rubber-coating of balloons, but if you will refer to "Appleton's Encyclopedia" you will find, under head of Modern Ballooning, an article, written by myself, where my method of coating with rubber is mentioned.

For certain reasons this sort of coating is exceedingly valuable, particularly where haste is required, or when two or more layers of cloth have to be cemented together. But rubber cannot compete with the best oil-varnished fabrics in retaining impermeability—the portions most exposed to the sun quickly drying out, hardening, and becoming porous. There is room for improvement, of course, and the demand for a double silk fabric for dirigible balloons like Baldwin's recently made for the United States government may suggest a combination coating rubber within and varnish without. A black varnish over the top of a dirigible balloon would seem to be a protection to the rubber in the most exposed portion, but the varnish must be of a kind that will not affect the rubber.

I would not advise manufacturers to anticipate any considerable demand of rubber goods for balloon purposes. The orders must necessarily be few and far between, but it might be very convenient to know where the goods could be procured at the shortest notice.

Yours truly, SAMUEL A. KING.

No. 5134 Ridge avenue, Philadelphia.

RUBBER-ASPHALT ROADWAY IN FRANCE.

A RECENT report by the United States consul-general at Marseilles relates to rubber-asphalt roadways, with which experiments have been made for six years past in Marseilles, Paris, Lyons and other French cities, and which as far as can be ascertained have given good results. From Mr. Skinner's report it would appear that the areas thus far paved under the new system are devoted to pedestrian traffic exclusively, "but from the character of the men interested in the company and the increasing importance of the work undertaken, rubber-asphalt paving must be regarded very seriously as a substitute for the more usual form of asphalt paving." The rubber-asphalt paving thus far has been confined to the work of a single company, operating a patented process, the details of which are not given fully. It is stated, however, that "the asphalt reduced to a fine powder is in the presence of rubber swelled and softened by a solvent. The material thus obtained is a brown powder darker than the original asphalt, and it suffices to compress it in order that it shall set and harden rapidly." This pavement is laid upon a foundation of first-class concrete, to a thickness of 1.37 to 1.57 inches. After the application to it of a rammer the surface may be opened immediately to travel.

In a recent issue of *Daily Consular and Trade Reports* (No. 3337) the United States consul at Port Elizabeth, Cape Colony, refers to some "root rubber" plants which he regards as new and of which he sends rough sketches. It happens that these plants have been described at some length in *THE INDIA RUBBER WORLD*: "Ekanda" (*Raphionacme utilis*) in our issue of July 1, 1907—page 300 and *Atractylis gummifera* in March 1, 1908—page 177. The consular report intimates that Mr. O. W. Barrett, of the United States department of agriculture, is now making some investigations of rubber plants in Portuguese East Africa.

Hunting Rubber in Holland---II.

By the Editor of "The India Rubber World."

I HAD heard much of The Hague—as who has not—but it had not occurred to me that it was a most beautiful city of more than 300,000 inhabitants, fashionable, rich, and the home of the royal family. I was more than glad to visit it, particularly as my invitation came from Dr. A. G. N. Swart. As president of the Netherlands Commission in London, he did brilliant work and when he invited me to come to The Hague and be dined I promptly accepted. It is only about 20 minutes from Rotterdam, and one can go over the new magnificent electric road which for equipment and service equals anything anywhere in the world.

At the dinner were Dr. and Mrs. Swart; Dr. J. Th. Viehoff, administrator of the colonial office; Dr. J. C. A. Everwyn, referendar of the department of agriculture, commerce and industry; Dr. W. R. Tromp de Haas, chief of the agricultural and chemical laboratories at Buitenzorg, Java; Mr. Jac. Musly, senior partner of Weise & Co., and Mr. J. G. Von Hemert, of Amsterdam. The dinner was all that hospitality and good taste could suggest. The most remarkable thing to me was that all of the conversation, stories, jokes and speeches were in English. Imagine a party of cultured Americans giving a dinner to a visiting Hollander, and talking only Dutch! It made me a bit ashamed of the linguistic deficiencies of myself and my countrymen.

I did not get much chance to "do" The Hague, nor did I have a good look at the great seaside resort "Scheveningen," situated close to The Hague, and in summer the most famous and fashionable watering place in the world. Still I was there to study rubber and to meet those whose interests centered about it, so perhaps I was living up to my opportunities after all.

I knew that Ridderkerk was quite close to Rotterdam, but the effort to find out just how one gets there was rendered unnecessary by my friend Mr. Musly, who looked me up one morning, led me to a fine river craft and we steamed up the Maas for a 30 minute run to Ridderkerk village. We went through the flax country and passed many quaint Dutch villages, each of which had some specific industry, such as the building of river craft, for example, lines of business that are handed down from father to son and employ families that live in a sort of feudal state, thrifty, conservative, wealthy. Incidentally, I got a new reason for wearing wooden shoes. Of course, only the working class use them, and they tell me that the willow wood of which they are made is a specific for rheumatism. How true this is, I do not know, but personally I should have to get very acute twinges before adopting them.

Landing at Ridderkerk we took a carriage and drove along the top of a dike, by dog teams, and horse teams, running, as I

thought, perilously close to the unprotected edge, but arriving safely. The factory which we visited bears the title "Nederlandsche Caoutchouc en Gutta Percha Fabriek 'St. Joris', Bakker & Zoon." The buildings are of brick, the floors of cement, and the whole equipment excellent. The washers, refiners, mixers, tubing machines, vulcanizers and presses are of the character found in most of the mechanical goods factories. Much of the machinery was made in a large machine shop quite near there, owned by a brother of the rubber manufacturer.

On entering the office I was introduced to Mr. Bakker, and as he left us alone for a moment I said to Mr. Musly:

"Where is Zoon?"

"That is he," was the reply, "whom I just introduced you to."

"I thought you said his name was Bakker?"

"It is," said Mr. Musly, light breaking over his countenance. "Zoon means son. The original firm was Bakker & Son; the senior is dead and Mr. Bakker, Jr., owns the business."

The company was started in 1879, and has a reputation for fine goods. The Bakker bicycle tires, for example, are noted for their lasting qualities—indeed some of them seem never to wear out. In addition to tires the company makes horseshoe pads, mats and treads, billiard cushions, a line of asbestos packings and solid tires.

Amsterdam is noted as being the richest, most exclusive, and so say its citizens, the cleanest and altogether the most beautiful of the cities in Holland. From a rubber standpoint it is interesting as being the location of the Amsterdam Caoutchouc-Fabriek V/h Pompe & Co. Their factory is situated on the water front and dates back to 1886 when it was started by Dr. D. de Bau, Mr. H. L. Bynink, and Mr. J. Pompe. These gentlemen were respectively a lawyer, a teacher, and a civil engineer. The first of the three died in 1902, the second now lives in Zeist and occupies himself chiefly with the administration of certain public works, while Mr. Pompe, although still much interested in the company, is a resident of Belgium.

The works have been enlarged a number of times and are now exceedingly well equipped for the manufacture of general mechanical goods, particularly a new type of floor tiling of their own invention. They make a specialty also of revolving rubber heels for such markets as Belgium, and regular heels for consumption in their country.

Those who deal in balata will recognize the name of Mr. J. G. Von Hemert, who has large interests in Dutch Guiana and handles much balata. It is also gossiped that when in the Guianas he acquired some exceedingly valuable gold properties which have been a constant source of revenue.



SCHÉVENINGEN ON NORTH SEA, NEAR THE HAGUE.



COLONIAL MUSEUM AT HAARLEM.

The oldest rubber factory in Holland is situated in the ancient city of Haarlem. It is, indeed, one of the old rubber factories of the world, and dates back to 1828, when Jan Van Geuns, an apothecary, erected a small brick building to manufacture rubber catheters and other surgical specialties in soft rubber, which he had made in a small way for some time. As he had no steam engine or windmill he built a treadmill which was operated by donkeys, or as Mr. Merens expressed it: "The mill was run by



ORIGINAL FACTORY OF MERENS BROTHERS.
[Built by Jan Van Geuns.]



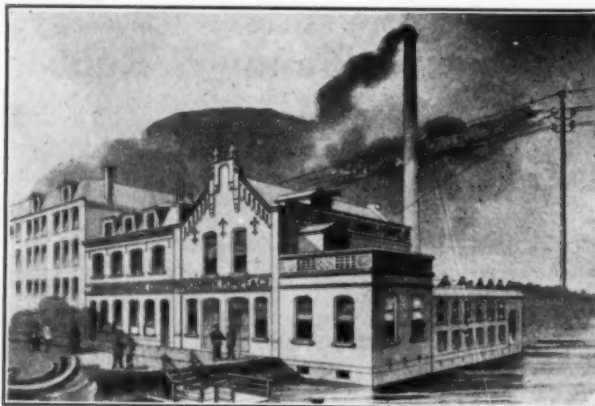
RUBBER FACTORY OF MERENS BROTHERS.



BAKKER & ZOON, 1879.



RUBBER FACTORY OF BAKKER & ZOON, 1908.



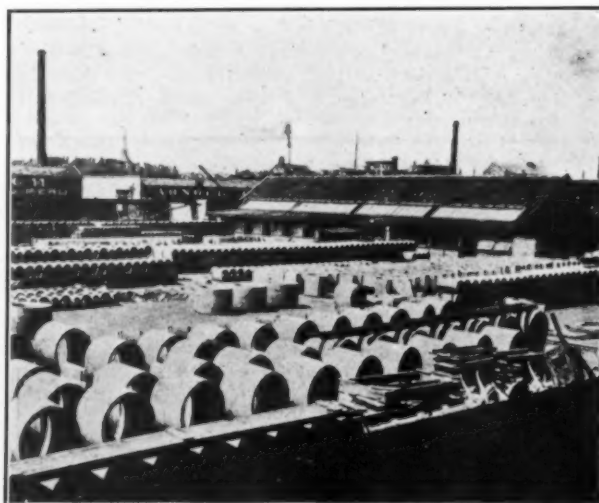
RUBBER FACTORY OF POMPE & CO.

asses"—not an impossible happening in any country or any time.

Van Geuns must have been something of a chemist and very much of a genius. There are those who believe he discovered sulphur vulcanization at just about the time that Goodyear and Hancock made the discovery. Certain it is that in 1842 he sold hose made of rubber that he guaranteed would not grow hard in the winter nor soft in the summer. The circulars describing this hose are still in existence, and point very strongly to a knowledge of sulphur vulcanization. Van Geuns died somewhere in the '70's and the business was purchased by Merens Brothers in 1876. They kept the original solidly built two story brick factory that the creator of the business has erected, but grouped around it modern factory buildings.

Knowing much of this history it was with more than usual interest that I descended from the train early one morning, sought a cab driver and said to him "Caoutchouc Fabrick Gebröders Merens" and rattled away over the cobble paved streets behind a heavy Belgian horse toward the manufacturing end of the city. These Dutch cabmen are apparently very stolid but they are certainly good drivers. This one proved it, when on a narrow street, one side of which was a broad canal with not even a two inch curb between the roadway and the water, he discovered he had taken the wrong road and calmly turned around, the wheels seemingly coming within an inch of the edge, while he acted as if he had room to spare.

Arriving at the factory, we were most cordially received by the



ROYAL CEMENT WORKS AT ROTTERDAM.



THE LATE B. BAKKER, SR.
[Founder of the firm of Bakker & Zoon,
rubber manufacturers.]



DR. A. G. N. SWART.
[President Netherlands Commission at the
Olympia Rubber Exhibition.]



THE LATE JULIUS WEISE.
[Founder of the crude rubber firm of
Weise & Co.]

senior Merens, his son and nephew. They took us through the factory, which was exceedingly well equipped for the manufacture of the smaller lines of rubber goods, such as general mold work, jar rings, pads and molded articles in semi-hard rubber. The most bulky of the goods manufactured were asbestos packings, deckle straps and garden hose in continuous lengths averaging 700 feet to the length. This hose was apparently made on the mandrel somewhat as regular $\frac{3}{4}$ garden hose is made. There was a smooth inner tube covered with plies of friction cloth cut on the bias and an outer cover and the hose was cloth wrapped and steam vulcanized. If it was made in short lengths and the ends butted and joined after semi-vulcanization, it was so done as to defy detection, and if it wasn't done that way a new and simple process in hose making had been evolved.

On the subject of just how they manufactured this hose, Mr. Merens was silent. He was justly proud of the product and perfectly willing to have any one examine it and describe it but as to how it was done, they must do their own guessing. This hose, by the way, was exceptionally strong, the fabric being woven from a mixture of cotton and linen.

The mechanical equipment of the factory was such as one would

find in any mechanical factory employing from 50 to 100 men. The washers, grinders, tubing machines, vulcanizers, spreaders and the two-rolled calender were products of French, Dutch and English machine shops, and while none of the machines were of the "Jumbo" type, they were all well fitted for the work to which they were put.

I was much interested in the old building which dated back to the beginning of things in rubber. It was built of small hand made bricks set in mortar that had turned as hard as flint. With its low ceilings, heavy beams and queer half circle windows, it seemed a modest, yet solid monument to one of the real pioneers in the business and one that would probably remain standing when greater and more modern factories had crumbled to dust.

The factory fronts on one of the great canals, so that freights of all sorts, to and from, are exceedingly cheap and the business is evidently prosperous. The workmen looked intelligent and had somewhat the air of old retainers who were proud of their employers and the feeling seemed to be reciprocal, as shown when one of the partners called attention to a youngster in the office who, he said, spent an hour each evening studying English.

After inspecting the factory, we lunched at Die Kroon, opposite



BAKKER & ZOON'S DREDGING SLEEVES.
[Length 64 inches; diameter 21 inches.]



BAKKER & ZOON'S SUCTION HOSE.
[Length, 13 feet 2 inches; diameter, 19 $\frac{1}{4}$ inches.]

the old Market House, and in sight of the great cathedral and the statue of Laurens Janszoon Coster, whom the Dutch claim as the inventor of printing. Whether it were he or Gutenberg, it isn't in my province to decide. At any rate in the old Haarlem Town Hall, surrounded by portraits of florid burgomeisters, some of them priceless, there are ancient models of Coster's presses, so perhaps he was No. 1 in the art that made publishing possible.

To digress a moment from the very interesting scenes and say a word about the Dutch language: everywhere were signs and very



BAKKER & ZOON'S HORSE POLO BALL.

soon most of them were readable to any one who knew English with a slight smattering of German. For example—"Sunlight Zeep" on a flaming advertisement could mean nothing else but "Sunlight Soap"; "verboden" wherever encountered meant "forbidden". Then too, we soon learned that the custom of putting a *j* after the *i* in so many words indicated that *i* was long and the *j* not sounded. Of the surnames on street signs were many that were very pleasantly familiar; such names as Vermeule and Van Vliet were in evidence and made one feel at home.

After a ride through the residence section of the city, where are many elegant houses, we put in the rest of the afternoon visiting the Colonial Museum, which has perhaps the most complete collection of industrial products in existence. The Dutch colonies are of course very thoroughly represented. There are models of native houses, boats and canoes, wonderful collections of arms, ornaments, head dresses and native tools, and thousands of specimens of woods from all over the world. There are herbaria filled with strange and rare plants, hundreds of jars of grains, seeds, and nuts used for food, and in one large room devoted to india-rubber there is perhaps the best collection of gutta-percha, balata and East Indian rubbers that can be found anywhere.

It was almost nightfall when we reluctantly left this most interesting symposium of Dutch progress and bidding good-bye to our friend Merens, who had acted as guide and explainer all the afternoon, caught our train and returned to Rotterdam.



A DUTCH WINDMILL.

noon, caught our train and returned to Rotterdam.

CRUDE RUBBER INTERESTS.

ECHO OF A FRAUD IN RUBBER.

A CIRCULAR issued in connection with the affairs of The Brazilian Rubber Plantation and Estates, Limited, an English company in course of liquidation by the official receiver [see THE INDIA RUBBER WORLD, August 1, 1908—page 364], asks the shareholders to sign a petition for a court order staying the liquidation until a shareholders' meeting can be held. It is proposed to reduce the nominal capital from £180,000 to £60,000, of which the present holdings will represent £50,000, with £10,000 to be found by the directors and their friends. Of the latter it is estimated that creditors would absorb £5,000, and £5,000 could be devoted to working capital. The circular asserts that "the area of the property [in the State of Ceará] has undoubtedly been overstated, but that rubber is there in abundance cannot be doubted." The company was registered January 31, 1906.

A RUBBER COMPANY TO HUNT GOLD.

At a special meeting of shareholders of the Inambari Pará-Rubber Estates, Limited (London, November 10), the chairman, Sir Martin Conway, spoke at length of the gold prospects in the Inambari river region which will be opened up by the completion of the road which the company are building as one of the conditions of their rubber concession. He proposed, and it was voted, that the rubber company subscribe £20,000 to the capital of a £100,000 company to be formed under the name Inambari Gold Dredging Concessions, Limited.

RUBBER IN PORTUGUESE EAST AFRICA.

THE annual report of the Companhia de Moçambique for the year 1907, which on the whole makes a favorable showing, refers with satisfaction to the company's trading in rubber. The collections reached 19,760 kilograms [43,472 pounds], which was sold in London and Hamburg for £7,400, to use round numbers. The highest price realized was 4 shillings per pound. The net profit was upward of 47 per cent., or about £3,520. This would figure out at 40 cents (gold) per pound. The rubber came mostly from wild *Landolphia* creepers, and a small amount from cultivated Ceará. The *Mascarenhasia elastica* has been found on their concession and yields good rubber. Its cultivation is proposed. [See THE INDIA RUBBER WORLD, May 1, 1906—page 265.]

RUBBER IN PORTUGUESE WEST AFRICA.

A GROUP of Belgian capitalists, it is reported, will exploit the rich rubber supplies of Lunda district, in Angola (Portuguese West Africa), the development of which has been retarded by the lack of local capital. The territory mentioned adjoins the Congo Free State; all shipments are to be made through the port of Loanda, which is within the Portuguese sphere.

LARGE RUBBER ARRIVALS AT NEW YORK.

ON Thursday, December 3, 57 invoices of crude india-rubber were passed in the first division of the customs appraiser's warehouse at New York. The net value of the merchandise was \$2,172,964.35. These are official figures furnished by William S. Harris, examiner of rubber in the United States public stores.

BRIEF MENTION.

M. AUGUSTE CHEVALIER, of France, well known for his scientific explorations in West Africa, which have contributed so much to the world's knowledge of the rubber species in that region, was lately reported to be about to start on another mission of the kind, on behalf of the French government, to last for two years or more.

The imposition of a tax of 2 pence per pound on all rubber exported from Madagascar has lessened materially the collection of the low class rubber found in the west of the island. The total exports of rubber during 1907 were 972,391 kilograms, worth 5,242,637 francs, against 1,267,203 kilograms in 1906, worth 7,537,946 francs.

Yield of Wild and Planted "Para" Rubber.

WHAT is the yield of a rubber tree? Simple as the question may appear—and it is asked incessantly—giving an intelligent answer to it is by no means simple. One must consider what variety of rubber is involved, where the tree grows, whether "wild" or cultivated, and, if the latter, the conditions under which planted. A remark may be recalled here from a report by a former British consul at Pará writing of native *Heveas* in the Amazon region: "Two trees growing close together and under apparently precisely similar conditions will often vary very much as regards their yield."

There is no question that rubber trees do yield, else what would become of the rubber market? On one day during the past month the customs authorities at New York reported the arrival of rubber of an invoice value exceeding \$2,000,000. The custom house at Pará dealt last year with 80,638,800 pounds, and some years the figures have been larger. Besides, the Amazon region doesn't supply all the rubber used. We hear over and over again that the Brazilian rubber is derived from trees scattered in dense forests, and that the native tappers gain a very small amount of latex from each day's tapping. But the Pará shipments argue either a tremendous number of wild rubber trees or a very considerable average annual yield per tree.

Since it must be admitted that trees do yield rubber, the question remains, how much? This subject, as relating to forest rubber, has been treated at some length in former numbers of THE INDIA RUBBER WORLD, including quotations from Mr. Vice Consul Temple, who once reported having had access to the books of some operators in the Brazilian field, indicating an average yield of 2.2 to 3.3 pounds yearly per tree. He was of the opinion, however, that very many trees were being worked with no larger average yield than 1.1 pounds. His report, however, had to do only with the state of Pará, where the rubber fields have been worked longer and more thoroughly than in the up-river regions. It does not seem to have occurred to the Amazon rubber trade to consider the yield of individual trees so long as total results are satisfactory. But chance details which have come to hand from time to time point to the probability of a yield of 4 to 10 pounds yearly per tree, varying with the degree to which *estradas* have been "worked out."

With the coming of cultivated rubber, on plantations owned by capitalists and with shares listed on stock exchanges, the question of yields becomes of particular interest in connection with the analysis of company reports. If one tree will afford a given quantity of rubber, will 1,000 give a thousand fold? In considering any of the figures which follow—all relating to the yield of plantation Pará (*Hevea*) in the Far East—it must be remembered that such yields may be influenced—

- By the character of the soil, altitude, or climatic conditions;
- By the closeness or width of the planting;
- By the frequency of tapping;
- By the method of tapping;
- By the care with which the latex is handled.

Trees with short trunks of large girth may be more productive than taller ones of less girth. The commencement of tapping is determined by the size of the trees rather than their age, and all trees do not grow at the same rate. It may be pointed out that even in the most detailed rubber plantation reports up to date statements of yield, as a rule, include in one total the produce of mature trees tapped throughout the year and that of trees just come "into bearing," which may have been tapped once or twice only.

It would be desirable to have, from each of several well managed plantations, a record of the yield of a definite number of rubber trees, of uniform size and age, tapped the same number of

times in a year, by the same system, and with the same method of treating the latex. It is not wholly satisfying to have included in one total a large tree yielding 5 pounds or more and a smaller tree from which $\frac{1}{2}$ pound or less has been obtained. In default of such figures the following details have been culled from the sources most available.

In the latest edition of his "*Hevea Brasiliensis*" Mr. Herbert Wright has compiled a lot of data on the yields reported from rubber estates, though without any effort to establish any rule as to yields as related to the age of the trees tapped. From one of his tables we have taken 23 items, referring to as many properties, on which, in 1905, 166,740 trees yielded 215,933 pounds of rubber, or 1,235 pounds per tree. The average per tree on one estate was as low as .32 pound; the largest reported for any one was 5.5 pounds per tree. A list of 16 of those properties shows an average yield per tree of 1.351 pounds. Six estates showed averages per tree of 2 pounds, 2.2, 3.2, 3.25, 3.5, and 5.5 respectively.

From another table in Mr. Wright's book a list has been compiled of 8 estates, on which 79,631 trees, in 1906, yielded 200,220 pounds of rubber—an average of 2.52 pounds. The average per tree on the various estates was 2.03 pounds, 2.37, 2.46, 2.75, 2.79, 2.88, 3, and 7.1 pounds respectively.

A particularly interesting item appears in the report of the Anglo-Malay Rubber Co., Limited, for the calendar year 1907. On their Terentang estate 28,043 *Hevea* trees, aged 7-8 years, are stated to have yielded 105,655 pounds of dry rubber, or an average of 3.76 pounds per tree. On their Ayer Angat estate, however, 14,540 older trees (9-10 years) yielded only 42,970 pounds, or an average of 2.95 pounds. On the other hand, 5,440 trees on their Batang Bali estate mostly only 6-7 years, though a few were 9-10, gave 18,112 pounds, or an average of 3.32. The total tapping for 1907, on these and another estate, covered 68,236 trees, yielding 224,778 pounds, or 3.29 average.

An attempt has been made by the writer to analyze the ages of the *Hevea* trees tapped during three years by the Bukit Rajah Rubber Co., Limited. Taking account of the approximate ages of their trees, so far as can be gathered from the company's various reports, and their definite statements of the number of trees tapped and their yield, these results appear:

Year ending March 31, 1906.—Trees tapped, 34,457; yield, 33,203 pounds; average age of trees at end of period, 6.23 years; average yield per tree, .97 pound.

Year ending March 31, 1907.—Trees tapped, 88,341; yield, 118,082 pounds; average age of trees, 5.94 years; average yield, 1.345 pounds.

Year ending March 31, 1908.—Trees tapped, 89,295; yield, 163,521 pounds; average age of trees, 7.27 years; average yield, 1.83 pounds.

Some very definite information is given in the report of the Highlands and Lowlands Pará Rubber Co., Limited, for 1906. It is stated that on one block of 16 acres 807 *Hevea* trees, 9 years old, planted 30x25 feet, were tapped during three periods of the year mentioned, with these results: 2,500 pounds at the first, 1,469 at the second, and 1,773 at the third, or a total of 5,742 pounds—an average of 7.01 pounds per tree for the year.

During the business year 1906-7 the Federated Malay States Rubber Co., Limited, collected 32,175 pounds of rubber from 12,335 trees, wide planting—averaging 2.60 pounds.

It may be added that the total production of plantation rubber in the Federated Malay States for 1906 was 861,738 pounds, from 441,482 trees, of varying ages, or an average of 1.95 pounds per tree.

From all the preceding data it would appear safe to estimate not less than 2 pounds annually from trees, say 8 years old, with

reason to expect an increased yield with greater age. But much larger yields, in exceptional cases, have been authenticated. Eleven-year-old trees on Culloden estate, specially tapped, gave 14 pounds of rubber from 8 months' tapping, and trees of unknown age (probably 20 to 25 years), from 10 to 25 pounds each in one year.

So far the maximum capacity of a cultivated *Hevea* would seem unsettled; meanwhile the conditions for a liberal production have not been agreed upon. A recent writer mentions five neighboring rubber plantations in Ceylon, on which were employed an equal number of tapping processes, each strongly defended by the plantation manager using it.

NOTES ON RECENT YIELDS.

KUALA LUMPUR Rubber Co., Limited, in the year ended June 30 gained 79,274 pounds of rubber from 39,543 trees (age not stated), or a fraction over 2 pounds per tree. This year more trees are being tapped, with the result that the four months ended October 31 yielded 60,740 pounds. The company's last consignment of rubber to Antwerp was sold on November 19 at an average of 5s. 6 $\frac{3}{4}$ d. [= \$1.35 1/3] per pound. The latest Kuala Lumpur report refers to an average of more than 6 pounds per tree having been obtained from something over 10,000 trees on the neighboring and older estates of the Federated Malay States Rubber Co., Limited, which are under the care of the same manager, Mr. E. B. Skinner.

Sumatra Pará Rubber Plantations, Limited, in their first report, mention the collection of 62,700 pounds in 15 months, or an average of 3 pounds per tree, young and old. The rubber realized 3s. 4 $\frac{5}{8}$ d. [= 82.1 cents] in London, after paying charges. The cost on the plantation is figured at 1s. 1 $\frac{8}{10}$ d. [= 28 1/3 cents] per pound.

RUBBER PLANTATION YIELDS (IN POUNDS).

	1907.	1908.
<i>Vallambrosa Rubber Co.:</i>		
Eight months to November 30.....	144,584	169,731
<i>Kuala Lumpur Rubber Co.:</i>		
Twelve months to June 30.....	251,998	78,274
[a—Fifteen months.]		
<i>Perak Rubber Plantations:</i>		
Nine months to November 30.....	22,670	36,534
<i>Yatiantota Ceylon Tea Co.:</i>		
Six months to June 30.....	3,077	4,354
<i>Sumatra Pará Rubber Plantations:</i>		
Fifteen months to June 30.....	.....	62,700
<i>Pataling Rubber Estates Syndicate:</i>		
Seven months to July 31.....	37,752	40,035
<i>Federated (Selangor) Rubber Co.:</i>		
Four months to July 31.....	5,658	15,785
<i>Anglo-Malay Rubber Co.:</i>		
Eleven months to November 30.....	196,109	312,050
<i>Seremban Estate Rubber Co.:</i>		
Eight months to September 30.....	79,167	100,418
<i>Perak Rubber Plantations:</i>		
Eleven months to November 30.....	22,670	36,534
<i>P. P. K. (Ceylon) Rubber Estates:</i>		
Ten months to October 31.....	10,448	22,212
<i>Lanadron Rubber Estates:</i>		
Eleven months to November 30.....	88,439	165,056

SOME YIELDS IN NOVEMBER.

	1907.	1908.
Anglo-Malay Rubber Co.....	22,450	34,062
Lanadron Rubber Estates.....	7,500	17,508
Perak Rubber Plantations.....	4,542	7,442
Sumatra Pará Rubber Plantations.....	3,250	5,940

THE DISCOVERER OF GUAYULE.

TO THE EDITOR OF THE INDIA RUBBER WORLD: In some notes on "Guayule in the United States" in your issue for November 1 (page 58) reference is made to the official report—on behalf of this country—on the boundary between the United States and Mexico, in which monumental work occurs the first scientific reference to what is now so widely known as the

"guayule" rubber plant. A little history of this survey may not be without interest.

The Mexican boundary survey was created by act of the United States congress to carry out the provisions of the treaty of Guadalupe. Its duties were to determine the dividing line between Mexico and the United States; to trace the Colorado; to examine into the mineral and agricultural resources, and to gain information concerning the natural history of the localities explored. The party consisted of about a hundred persons, including surveyors, scientists, artisans, and laborers.

John Milton Bigelow, the original collector of guayule, was born in Vermont in 1804, educated a physician, practised medicine in Lancaster, Ohio; served as surgeon and botanist in the Mexican boundary and Pacific railroad surveys, and occupied the chair of *materia medica* in the Michigan Medical College. He was the author of "Medicinal Plants of Ohio" and numerous articles on *materia medica*, and died in Detroit, Michigan, in 1878.

Bigelow should have more credit for the discovery of guayule. Our sympathies go out to this intrepid collector. The writer has looked for guayule in the same section but under present conveniences and did not succeed. Bigelow's original location was "Escondido creek," which place is not given on recent maps of Texas. Havard gives Rio Escondido as a stream flowing into the Rio Grande from the Mexican side, three miles below Eagle Pass. Havard, however, does not give guayule on his list of plants.

The writer examined this locality in 1901 and again in 1907, but was unable to locate the shrub. Judging from the character of the flora I infer that this location is outside of the guayule belt.

Concerning the location of Escondido creek Mr. J. T. Robinson, acting land commissioner, Austin, Texas, writes: "The word 'Escondido' is frequently used for the name of small creeks in the southwestern part of Texas. The largest of these in the guayule belt of the country is situated in Pecos county and flows northward into the Pecos river."

Dr. Asa Gray in his later description of the plant (*Synoptical Flora of the United States—Volume Composita*) says: "Found on southwestern borders of Texas (Bigelow) and adjacent Mexico (Parry and Palmer). The plant contains gum or resin in Mexico."

The proceedings of the boundary commission were marked by bitter quarrels between the commissioner and his subordinates. Charges and counter charges alleging drunkenness and graft were freely made. The quality of the rations formed a source of complaint from the men. Employés were unable to draw their pay on account of lack of funds. One man, the assistant quartermaster, was murdered by outlaws (first appearance of the "southwestern bad man") near El Paso.

That considerable anxiety was shown in the expected aridity of the line of march is evinced by the fact that the original order for supplies called for "10 barrels of whiskey, 60 gallons of brandy, 100 gallons of claret, 60 gallons of sherry, 30 gallons of port, and 40 gallons of fine assorted wine in bottles."

With such a layout we wonder that they did not report more guayule. We also begin to doubt the authenticity of those beautiful, highly colored pictures of birds and reptiles.

CHARLES P. FOX.

Akron, Ohio, December 9, 1908.

THE recently formed German asbestos syndicate is stated to be conducting negotiations for the purchase of the various asbestos mines situated in the Ural mountains region of Russia, the output of which has risen within ten years past from 101,638 poods to 571,994 poods [=20,571,786 pounds].

An international aeronautical exhibition is to be held this year at Munich, comprising nine sections, covering the whole field of balloon making and its accessories, flying machines in the different stages of their development, and in general the subject of the control of aerial vehicles in flight.

The India-Rubber Trade in Great Britain.

By Our Regular Correspondent.

THE great cotton strike which lasted for seven weeks and led to the closing down of 400 mills, came to an end on November 6, largely owing to the good offices of the mayors of Darwen and Salford, the latter, Alderman Frankenburg, being a well known rubber manufacturer. There

THE LANCASHIRE COTTON TRADE.

has been some giving way on both sides, but the masters have got the 5 per cent. reduction in wages, only this does not take effect until March 1, instead of at once. The cessation of the strike is of course a good thing for many besides the operatives immediately concerned, but it must not be assumed that the prevalent depression in trade, and more particularly in the cotton trade, is likely to show any rapid improvement. The world is still replete with goods manufactured at high prices during the past boom, and in all probability the mills will continue to run on short time as was the case before the strike. The rubber works are of course large buyers of cotton cloth and prices have been recently in their favor; their trade interest in the strike has reference to the sale of the various mechanical rubber goods used by the cotton mills and associated industries, and salesmen will be glad that an exceptionally slack period has come to an end. An important matter which is against the staple Lancashire industry at the moment is the very low silver exchange, curtailing the demand from the great Eastern markets of China and India, on which Lancashire so largely depends. Mr. Frankenburg, who has been mayor of Salford for three years in succession, has now retired from that position, which he has admittedly filled with credit and distinction. Under the heading "The Cotton Goods Market" in the November issue of THE INDIA RUBBER WORLD, I read that the position betokens a supply of cotton unequal to the demand. At the moment, looking at the position of the Manchester trade—worse, experts say, than it has been for 40 years—it is rather difficult to accept the statement, as regards American cotton at all events.

THE address given at the recent Rubber Exhibition at Olympia by Dr. P. Schidrowitz on the relations between the manufacturer and the consumer, raises one or two questions which seem to call for consideration, and this quite outside the

TRADE SECRETS AND AUTHORS.

strict subject matter of the lecture. The author has of late years given a good deal of attention to rubber analysis and has no doubt gone to considerable expense in fitting up his experimental laboratory. Now I may be wrong, but I am presuming that his actions are not primarily based on Benthamist motives, though he may to some extent have the interests of the trade at heart. It strikes me, in view of the secretiveness displayed by the works chemist as regards experimental work and analysis, that Dr. Schidrowitz is giving away rather too much to those who will give nothing in return for the information and help. Any methods for physical testing, which he may devise or elaborate, will be examined and taken over as a free gift by others who will utilize them to advantage. I remember that Dr. Weber was always inveighing against what he called the miserable policy of secrecy and silence adopted by the chemists of our large rubber works; they read what was published with avidity and contributed nothing to contemporary literature. Of course with regard to this point of publication one has to remember that the consulting chemist is his own master and the works chemist is not. The latter has his policy dictated to him and it is a safe assumption that in the majority of cases he is requested to abstain from appearing in print or on the platform. Dr. Weber had many a hit at rubber trade secrets, but although there may not be many of real value now existent, still there is a good

deal about works procedure which individual firms conceive it to be their interest to keep to themselves and no one will blame their conservatism. It is particularly noticeable that in the course of his paper Dr. Schidrowitz hauled himself up once or twice somewhat abruptly when he came to points which had come before him in his consultative capacity and which he was not at liberty to enlarge upon. The rubber trade, it seems to me, will continue to show aloofness among its individual members, and although there are outside enthusiasts who think that manufacturers should meet and discuss matters on the lines of the Iron and Steel Institute or newly formed Institute of Metal, I don't see much chance of the suggestion coming to fruition. Dr. Obach published his work on Gutta-percha when he was with Messrs. Siemens, but I cannot call to mind anything else in the way of a book coming from the inner recesses of any of our rubber factories. The tendency has been in the other direction.

THE interesting article which appeared under this title from the pen of Mr. Ira W. Henry in THE INDIA RUBBER WORLD for October suggests one or two remarks by way of comparison with this country.

GROWTH OF THE INSULATED WIRE INDUSTRY.

The reference made to existing specifications of various authorities for rubber insulation indicate a state of affairs not yet reached in this country. Certainly the various types of insulated wires, especially in the case of flexibles, are standardized in this country. Moreover, we have a Cable Makers' Association, the members of which guarantee that all wires bearing the union label are of first-class quality. There is not, however, any agreement among the manufacturers as to the precise mixing to be employed. If I read Mr. Henry's article right the Americans are bound to work to a standard of 40 or other percentage of Pará, the reference to the admixture of dry mineral water is presumably an error. There may be some rigid specifications of the sort in existence here, but in the bulk of work the firms turning out union or best quality cables have their own mixings. What the buyers do not altogether approve of in the present situation is the practical agreement as to price, and in one case at any rate an order has gone out of the country as the quotations obtained from various firms were exactly the same. In other cases surprise has been expressed at the close approximation of prices where the insulations differed considerably in value. Mr. Henry refers to the chemical testing which is in vogue in America; in the interests of fair trading it is to be hoped that this is punctiliously carried out. With regard to the prospective increase in the use of rubber insulation, I think that mining purposes might have been included. The demand for flexibles and other small diameter cables will assuredly increase largely, but the bare conductor system for modern high voltages will continue to displace rubber in one of its former important applications. Rubber insulation is referred to as being largely used by the telephone companies. In this country rubber and gutta-percha have been largely displaced by paper insulation, the strands being carried in a lead tube, the air in which is kept dry by sulphuric acid. It certainly seems rather anomalous that old rubber insulation should continue to be burnt off the wires in the present year of grace. I would not go so far as to say that none of it is ever recovered. A good deal has been recovered by hand labor in England, and at least one special machine has been built to do the work and has given satisfactory results.

At the meeting held in London on November 27 a dividend of 100 per cent. was declared—the same as last year—and this

THE DUNLOP RUBBER CO.

despite the somewhat adverse conditions experienced in the motor and cycle trades. The particular trading condi-

tions which this rubber company enjoys owing to its very intimate connection with the Dunlop Tyre company have been referred to on former occasions, and there is no need for repetition, though of course the public who only see the general announcement of the dividend in the newspapers—and it is pretty well advertised—are apt to jump to the conclusion that rubber manufacturers generally are making an exceedingly good thing out of their business. The chairman, Mr. Harvey du Cros, made special reference to the fact that they had overcome various difficulties experienced in the manufacture of omnibus tires, after having lost a good deal of money in their primary efforts in this direction.

THE profits announced by this important company as the result of its first year's incorporation amounted to £63,411, which

R. & J. DICK,
LIMITED.

is very near the £65,000 mentioned in the prospectus. A dividend of 4 per cent. is declared on the ordinary shares, and £15,000 is written off the good will which figured rather prominently in the prospectus. As regards the balata belting business the company seem to be holding their own, but having regard to the large competition which has now arisen, especially in the cheaper qualities of belting, I shall be surprised if the Glasgow works make any further great strides in this part of their business. Indeed, they may possibly find it necessary to adopt the somewhat lavish advertising tactics which have brought the new competitors' goods before a wide public.

THE following advertisement recently appeared in the *Journal of the Society of Chemical Industry*:

SYNTHETIC
RUBBER.

WANTED.—Inorganic chemist, having own laboratory, experienced to work with gas, wanted to demonstrate a synthetic rubber process. Chance for life situation. Apply to Motors and Accessories, Limited, 1 Southampton row, London, W. C.

This advertisement struck me as interesting, though my curiosity did not go to the extent of applying for the life situation. I am wondering whether it has anything to do with Heine-mann's patent of October 2, 1907. This reads: "A mixture of acetylene and ethylene is heated at a dull red heat and the resulting divinyl converted into methyl divinyl or isoprene by the action of methyl chloride. Caoutchouc condensed from the isoprene thus obtained is equal in every way to the natural product." Well, perhaps it may be, and the patent deals with a scientific process of great interest. It is, however, of no novelty to prove that rubber can be prepared by chemical experts in a well appointed laboratory. What would be novel is a proof that it can be made at a price to enable it to compete with the natural product. This is where the stumbling block comes in and I don't see how it is to be easily removed. The search for synthetic rubber is by no means confined to those who are ignorant of the rubber manufacture and its associations because continuous work in this direction is being carried on in the research laboratory of the Continental works at Hanover. In other quarters, however, the mistaken enthusiast and the rogue have been largely to the fore in connection with the business, and each have found supporters of sufficient credulity to advance funds for experimental work.

WITH regard to the inferiority or otherwise of plantation Pará rubber compared with the ordinary Brazilian product some mild

PLANTATION
RUBBER.

recrimination has been going on between experts in the columns of *The India-Rubber Journal*. I think that I

am right in saying that the present position is this: By the employment of certain picked brands of rubber on a small scale it may no doubt have been shown that even for the most important application no perceptible difference is discernible—that is, as far as judgment can be made without the test of time. On the other hand there is so much variation in the rubber marketed by different plantations that manufacturers not unnaturally are indisposed to use large quantities for any particular best purpose. At present it seems impossible to buy a five-ton lot without finding considerable variations in the quality or at any rate

variations which are not met with in the case of Brazilian Pará. For commoner purposes this matter is not of great importance and the advantage of being able to use crêpe rubber straight off without any washing is appreciated in certain branches of the trade. By the way, I hear of rubber being offered as crêpe and at similar prices though it was merely a wild rubber of a resinous nature prepared in the form of Ceylon crêpe. It may possibly have been offered upon its merits, but judging from what I was told an intention to deceive the buyer was not improbable.

DR. JOSEPH TORREY.

THE practical thinking chemist in the rubber mill is sure to rise, particularly if he has business ability. What inspired this thought was the fact that Dr. Joseph Torrey, who began



JOSEPH TORREY, PH.D.

as a rubber chemist, is to-day not only chemist but super-intendent and director of a prosperous rubber company. Dr. Torrey was born in East Hardwick, Vermont, in 1862. He graduated at Bowdoin College in 1884 and was assistant in chemistry at Lafayette College for one year, then professor of chemistry at Iowa College for five years. He went to Harvard College on the Morgan fellowship in 1890, but soon resigned it to take an assistant professorship.

He was made a Ph. D. in 1896. In 1900 he went to Akron, Ohio, as chemist of The Diamond Rubber Co., to which was subsequently added the superintendency of the reclaiming department. In 1902 he went to Liverpool as consultant for the Northwestern Rubber Co., Limited, and was made general superintendent in 1903, and subsequently put upon the board of directors. Personally, Dr. Torrey is a quiet, studious, modest gentleman, deeply interested in rubber problems and usually right in his conclusions.

THE Anchor Cable Co., Limited, have made a debenture issue of £50,000 [= \$243,325], at 4½ per cent. The company was incorporated in December, 1900, to manufacture electric cables, at Leigh, Lancashire. In 1903 all the issued shares were purchased by Callender's Cable and Construction Co., Limited, since which time the Anchor business has been carried on and financed by the Callender company as a distinct concern. The output is confined to rubber wires and telephone cables. The manufacturing profit in 1907 reached £7,982 16s. 1d. The debenture issue is for the purpose of retiring bankers' loans incident to the reorganization of the Anchor business, and is guaranteed by the Callenders. The approaching acquisition of the British telephone system by the government gives rise to the expectation of important orders for new telephone equipment.

At the recent medical exhibition in London R. M. Howison exhibited American goods of the Seamless Rubber Co., Davol Rubber Co., Faultless Rubber Co., Pennsylvania Rubber Co. and Morgan & Wright.

New Rubber Goods in the Market.

HAWES'S WATERPROOF FISH AND GAME BAG.

THE self closing waterproof rubber lined bag here illustrated may be worn under the coat or on the outside, and is an ideal trout bag when worn with strap over shoulder.

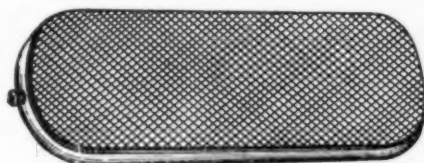


WATERPROOF GAME BAG.

Dead grass color, with an acid-proof rubber lining that can be turned and washed, preventing the scenting or soiling of clothes. It will not bag at the top because of the self closing device; fish cannot get out, and they are kept clean since dust and twigs cannot enter. Made in two sizes—12x12 inches and 9x9 inches—to fit side or back pockets of hunting coat. An extra pocket is attached to the outside for fly book or bait box. It is a very handy and serviceable article. [C. J. Hawes, Cabot, Vermont.]

BUKACEK'S PNEUMATIC CUSHION.

THE object of a recent invention is to provide, for the convenience of persons obliged to stand very much upon a floor or other hard surface, a yielding cushion, and the article illustrated here is novel, simple, and durable in character. The interior is composed of an air tube wrapped into a plurality of convolutions, one surrounding the other, the whole being adapted to



BUKACEK'S PNEUMATIC CUSHION.

being inflated through an ordinary air valve. The tube is formed of fabric, rubber lined, and the cushion is completed by the addition of a rubber cover, preferably roughened or checked, to the upper face of the cushion. While an oblong form is illustrated, other forms may be produced. The cushion is designed particularly for bookkeepers and clerks whose work requires them to stand for long periods while at their work. This invention is the subject of United States patent No. 889,756, granted to Joseph S. Bukacek, Riverside, Alabama.

BODLEY'S REVOLVING RUBBER HEELS.

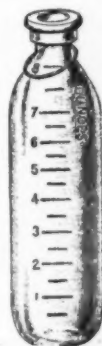
It really appears as if the rubber heel were coming to America to stay and, as usual, we are ahead of the rest of the world in that we have a revolving heel that does its own revolving. The English heels, if we understand them aright, are stationary until they get worn a little, and then the wearer turns them about, presenting a fresh wearing surface. The Bodley revolves as you walk. Not, of course, fast or hard enough to keep one out of the straight and narrow path but just enough to wear evenly. This is, perhaps, because they are made of "live rubber." [Bodley & Co., New Britain, Connecticut.]



BODLEY REVOLVING HEEL.

"RINGLOCK" NURSING BOTTLE.

THE "Ringlock" nursing bottle embodies an improvement over other bottles by reason of a slight alteration in the shape in the neck and the addition of a metal ring, which renders it practically impossible for the child to pull or roll the nipple off. "Ringlock" bottles are made in both decanter and sterilizer shapes. In each case, a narrow ridge, or band, is raised on the neck, just beneath the lip. A metal ring, slightly larger than this ridge, slides loosely on the neck of the bottle. In operation, the nipple is drawn on in the usual manner, care being taken to pull the nipple well down over the ridge so the roll on the nipple is beneath the ridge, thus making it easy for the wire ring to go up over the nipple, locking it fast, and the metal ring



"RINGLOCK" NURSING BOTTLE.

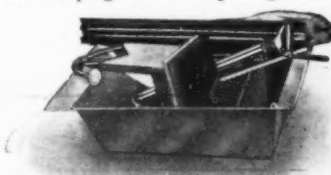
is then slipped over it, compressing the rubber and locking the nipple fast. The nipple is released by simply slipping back the ring, which then slides down and rests on the shoulder of the bottle. This article has been patented. [Fox, Fultz & Co., No. 18 Blackstone street, Boston.]

THE PORTABLE SHOWER BATH.

SOMETHING new in the way of a bath is shown in the accompanying two cuts illustrating the Portable. Before describing the article it may be pointed out that it can be installed without city water connections or plumbing of any kind; that it can be used in any room in the house, or anywhere else, without the slightest chance of splashing over; that with as little as 3 gallons of water, at whatever temperature may be desired, one can take complete bath, including a shower with clean water from a separate compartment. The reservoir is made of galvanized steel, 21 x 29 inches and 9½ inches deep, and divided into two compartments, in the larger of which the bather stands with the supply of water for soaping and shampooing. The smaller holds clean water for the shower. This permits an improvement over the old method of soaping and scrubbing the body and rinsing in the same water. Instead of standing the bather may, if desired, sit on a stool placed under the curtain. The latter, by the way, is made of surgeons' rubber sheeting, riveted to hard wood rods which are firmly attached to



PORTABLE SHOWER BATH.



THE BATH FOLDED.

the reservoir when the apparatus is to be used. The price of the whole outfit is \$12. [The Portable Shower Bath Co., No. 203 South Canal street, Chicago.]

INLAID ART MATTING.

THE illustration accompanying this is not intended to advertise any particular make of typewriter. It is just to draw attention to a complicated design in perforated mats in colors, and con-



INLAID ART MATTING.

taining from 2500 to 3000 different pieces of rubber, a bit of inlaying that any factory ought to be proud of. The work was done by the Voorhees Rubber Manufacturing Co., Jersey City, New Jersey.

ELECTRIC SUCTION SWEEPER.

THE electric suction sweeper illustrated here is a combined sweeper and vacuum cleaner. The device contains electrically operated brushes which dislodge the dirt clinging to carpets, rugs, etc., while a fan sucks the dirt and dust and deposits it in the receptacle shown attached to the handle. A single vertical motor is employed to the



ELECTRIC SUCTION SWEEPER.

shaft of which the fan is attached. The brush revolves at a high rate of speed in the small housing provided for it in front of the fan receptacle and it is driven from the motor shaft through a belt. For removing dust from furniture, walls, and pictures, proper devices are fastened to a hose leading to a suction pan placed under the front of the sweeper when such articles are being cleaned. A blower connection is provided for giving air under pressure in renovating mattresses, pillows, etc. The blower connection is attached to the rear of the sweeper, the dirt receptacle being removed for that purpose. The motor is supplied with electricity through a flexible cord attached to any lamp socket. [Electric Suction Sweeper Co., New Berlin, Connecticut.]

AN ODD USE FOR RUBBER BELTING.

It may not be known to everybody, but in the great packing establishments, that is, meat packing, where thousands of slaughtered animals are handled every hour, there are special machines

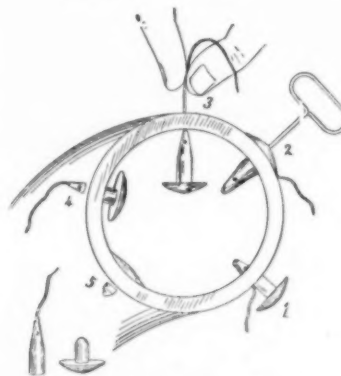


"LOOP BEATER."

for special work. For example, in the handling of hogs there is what is known as a dehairing and polishing machine. Its office is to quickly and effectively remove the bristles from the epidermis of a defunct hog and it does it wonderfully as compared with the ordinary scraping by hand or by steel knives. The new idea is the utilization of loops of rubber belting attached to revolving shafts. The carcass of the hog is run through the machine that fairly bristles with these loops which beat and scrape every part, thoroughly cleaning it, and with less time and effort than has heretofore ever been expended for this process. Another triumph for rubber! The machine in connection with which the loop beater is used is made by The Allbright-Nell Co., Chicago.

NEAL TIRE REPAIR KIT.

THE accompanying cut represents a plugging kit for motor-cycle tire cases. It is claimed that this will economize time and labor in the plugging of punctures and small deep cuts

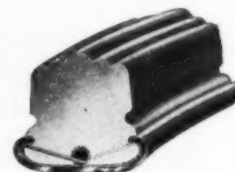


NEAL TIRE REPAIR KIT.

in casings, thereby preventing grit from working in, causing blow-outs and blisters, which would necessarily entail vulcanizing. [F. M. Neal Co., Bridgeport, Connecticut.]

SWINEHART MOTOR BUGGY TIRE.

A NEW motor buggy tire illustrated on this page is designed, by reason of its wide tread to afford greater traction through mud and sand, and overcome a serious objection to high wheeled automobiles. It follows the general design of the regular automobile cushion tire manufactured by the same company, which has been used to compete with pneumatic tires during the last five years. Advantage is claimed for the motor buggy tire on account of its clincher rim, which, it is claimed, prevents water and sand from entering the base of the tire. The large size of the tire also tends to decrease vibration. [The Swinehart Tire and Rubber Co., Akron, Ohio.]



MOTOR BUGGY TIRE.

Recent Patents Relating to Rubber.

UNITED STATES OF AMERICA.

ISSUED NOVEMBER 3, 1908.

- N**O. 902,551. Tire jacket for vehicle wheels. J. Bowie, Omaha, Neb.
 902,573. Name plate and fastener for rubbers. [To indicate "rights" and "lefts."] Sadie N. Fleck, New York city.
 902,644. Connection for inflating tires. W. Boyd, Sabina, Ohio.
 902,683. Hose nozzle carriage and hoisting device. E. J. Petru and J. Zidek, Chicago.
 902,693. Indicating device for use with pneumatic tires. [To indicate punctures.] T. and R. Sloper, Devizes, England.
 902,806. Hose coupling. W. T. De Worth, Bordentown, N. J.
 902,824. Vehicle tire. [Pneumatic.] G. Lambright, Rutherford, N. J., assignor of one-half to F. A. Magowan, New York city.
 902,863. Lawn sprinkler. J. J. Darrow, Asherville, Kan.
 902,891. Rubber securing device. [For overshoes.] H. J. Lozier, Des Moines, Iowa.
 902,926. Vehicle tire. [Solid rubber.] J. A. Swinehart, Akron, Ohio.
 902,969. Waterproof pad protector. Ella A. Kendall, Philadelphia.
 903,043. Hoof pad. D. T. Barber, Gustavus, Ohio.
 903,066. Tire. [Pneumatic, with solid tread.] F. A. Ellis, London, England.
 903,098. Vaginal syringe. O. Katzenberger, San Antonio, Tex.
 903,107. Vaginal syringe. C. F. W. Ramus, assignor of one-half to B. H. Ring, both of Boston.

Trade Marks.

- 36,960. New Jersey Car Spring and Rubber Co., Jersey City, N. J. The word *Emerald*. For garden hose and belting.
 36,962. *Same*. The word *Tuebor*. For tubing and hose.
 36,963. *Same*. The word *Staple*. For hydraulic hose and belting.
 37,470. *Same*. The word *Arcadia*. For belting.

ISSUED NOVEMBER 10, 1908.

- 903,422. Horseshoe pad. J. B. White, Buffalo, N. Y.
 903,707. Manufacture of rubber tires. J. T. Gordon, Indianapolis, Ind.
 903,714. Pneumatic tire casing. C. G. Hawley and E. K. Baker, Chicago.
 903,715. Tread for pneumatic tires. *Same*.
 903,750. Horseshoe. [With rubber pads.] H. Paar, Canton, Ohio, assignor of one-half to C. McGranahan, Chicago.

Trade Marks.

- 36,808. Slater & Morrill, South Braintree, Mass. The letters *S. & M.*, for rubber soled letter shoes.
 37,495. Hazard Mfg. Co., Wilkes-Barre, Pa. The representation of a pioneer settler and an Indian shaking hands under a tree. For rubber insulated wires.
 37,704. Charles F. Webber, Arlington, Mass. The word *Chevalier* on a shield. For rubber and other boots.

ISSUED NOVEMBER 17, 1908.

- 903,831. Sprinkling device. [With spherical rubber bulb.] K. S. T. Björkman, Ontario, Canada.
 903,891. Pneumatic tire. C. Scheuner, Chicago.
 904,143. Wheel for motor vehicles. [With rim recessed for pneumatic tire.] A. L. McMurtry, assignor to Wyckoff, Church & Partridge, New York city.
 904,140. Atomizer for scent and other sprays. H. Rachmann, Haida, Austria.
 904,193. Horseshoe. [With rubber tread.] H. J. Fillicz, assignor of one-half to E. D. Brant, all of Canton, Ohio.
 904,380. Hose reel. L. Vader, Pittsfield, Mass.
 904,409. Pneumatic tire. J. L. Coesir, Joplin, Mo.
 904,455. *Process and non skidding band for pneumatic tires of wheels.* A. T. Hughes, London, England.
 904,470. Manufacture of artificial Pará rubber. [A process of making synthetic rubber, which consists in subjecting vegetable matter, such as peat, to fermentation until a mucilaginous mass containing a large percentage of isoprene is formed, separating the mucilaginous mass from the remaining liquid, and treating it with a nitrogenous derivative of iron and suitable mineral salts.] J. Blum, Boniface, Brussels, Belgium, assignor of one-half to A. W. Carpenter, London, England.

Trade Marks.

- 26,308. R. A. C. Esnault-Pelterie, Boulogne sur Seine, France. The word *Repperton* on a section of an pneumatic tire. For tires.
 34,693. A. W. Faber, Stein, Germany. The word *Columbus*. For rubber erasers.

ISSUED NOVEMBER 24, 1908.

- 904,515. Invertible atomizer. T. A. De Vilbiss, assignor to The De Vilbiss Mfg. Co., all of Toledo, Ohio.
 904,527. Hose rack. H. Gibbs, assignor to W. D. Allen Mfg. Co., Chicago.
 904,564. Cow milker. J. Ripczinske, Wausau, Wis.
 904,570. Supplemental wheel for motor cars. M. D. Stocking, Lindenwood, Ill.
 904,673. Nozzle tip. [For hose.] W. E. Bideker, Fort Worth, Tex.
 904,721. Motor wheel for cycles. [With pneumatic tire.] J. E. Périllard, Geneva, Switzerland.
 904,808. Insulating material. G. H. Rupley, assignor to General Electric Co., Schenectady, N. Y.
 904,930. Aerial ship. F. Bollhorn, Veddel, near Hamburg, Germany.
 904,945. Wire bracket or holder and insulator. I. L. Edwards, Aurora, Ill.
 905,032. Spray nozzle. A. S. Washburn, Germantown, N. Y.

- 905,087. Atomizer. H. H. Mallory, Chicago.
 905,105. Rubber footwear. E. A. Saunders, South Bend, Ind.

Trade Marks.

- 30,372. Peerless Rubber Mfg. Co., New York city. The word *Acme*. For hose.
 30,374. *Same*. The word *Lakeside*. For hose and packing.
 35,083. Archer Rubber Co., Milford, Mass. The words *Archer Brand*, under an arched bridge. For rubberized swimming collars.
 38,170. A. G. Spalding & Bros., New York city. The word *Dimple* in a semi-circle. For golf balls.
 38,171. *Same*. The word *Glory* in a semi-circle. For golf balls.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each, postpaid.]

GREAT BRITAIN AND IRELAND.

PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the Application, which in the case of those listed below was in 1907.

*Denotes Patents for American Inventions.

- [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, NOVEMBER 4, 1908.]
 16,077 (1907). Puncture resisting layer for pneumatic tires. W. Morton, Wishaw, Scotland.
 16,125 (1907). Method of repairing tires, hose pipes and the like. H. Herzog and O. Hilfer, Munich, Germany.
 16,102 (1907). Holder for spare tires on motor cars. N. Robinson and J. M. Roberts, London.
 16,257 (1907). Hose coupling. W. F. J. Curnow, Aramaho, New Zealand.
 *16,325 (1907). Apparatus for vulcanizing rubber in great lengths. J. R. Gammeter, Akron, Ohio.
 *16,349 (1907). Upper of an overshoe. F. C. Hood, Boston, Massachusetts.
 16,454 (1907). Metal band to prevent tires from puncturing. J. Brookes, Birmingham.
 16,459 (1907). Tire inner tube with recess or indented ends. J. Mollett, London.
 16,520 (1907). Mixtures for rendering fabrics waterproof. S. Ebizuka, Yokohama, Japan.
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, NOVEMBER 11, 1908.]
 16,587 (1907). Elastic tire. T. J. McBride, Christchurch, New Zealand.
 *16,665 (1907). Pneumatic tire with self sealing compound. A. B. Shaw, Medford, Massachusetts.
 16,695 (1907). Elastic tire formed of two or more rows of blocks. H. Swales, London.
 16,772 (1907). Spring wheel with inner and outer rims connected by india-rubber insertion pieces. J. Sice, Newton-le-Willows, Lancs.
 16,796 (1907). Inflated valves for tires. W. Richards, Portsmouth.
 16,819 (1907). Spring wheel with hub portion carrying a pneumatic cushion. J. D. Macarthur, and two others, Ayr, Scotland.
 16,981 (1907). Pneumatic tire. E. Lang, Münsterburg, Germany.
 17,055 (1907). Tire having a tread of wooden blocks resting on a rubber cushion. M. R. Zechlin, Charlottenberg, Germany, and another.
 17,118 (1907). Puncture preventive band for pneumatic tires. A. E. Knight, Glasgote.
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, NOVEMBER 18, 1908.]
 17,179 (1907). Spare tire carrying rim. P. E. Doolittle, Toronto, Canada.
 17,220 (1907). Rubber shoe with adjustable fastening strap. E. Kubath, Strobjehnen, Germany, and another.
 17,417 (1907). Rubber cushion for horseshoe. H. Beigel, London, and another.
 17,468 (1907). Spring wheel with pneumatic tube at the hub and rim. Comte G. de Robiano, Marchin lez Huy, Belgium.
 17,469 (1907). Heel protector. W. J. Checkley, London. (J. Darnell, Brisbane, Australia.)
 17,485 (1907). Method of making seams in hot water bags. J. B. Brooks, Bromsgrove.
 17,563 (1907). Puncture preventing fabric for pneumatic tires. W. Hill, Birmingham, and J. P. Wilks, Uttoxeter.
 17,591 (1907). Spring wheel with rotatable pneumatic cushion. C. H. A. Verity, Leeds.
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, NOVEMBER 25, 1908.]
 *17,621 (1907). Tubular or flat multiply fabrics for hose pipes or belting. H. Z. Cob, Malden, Massachusetts.
 17,664 (1907). Flat thread of leather for tire covers. A. L. H. Ripert, Asnières, France, and another.
 17,753 (1907). Heel and sole protector of leather and rubber. J. Zuchvalovic, Gorton, Manchester.
 17,815 (1907). Solid rubber tire, with embedded bands of interwoven wire helices. A. E. Wale, Birmingham.
 17,863 (1907). Leather, rubber and canvas patch for tire repairs. H. Marles, Manor Park, Essex.
 17,930 (1907). Elastic tire. J. Cairns, Willenhall.
 17,949 (1907). Heel of a golosh recessed to receive a revolvable disk of leather. G. E. Smith, Christchurch, New Zealand.
 17,966 (1907). Tool for applying tires. Michelin et Cie., Clermont-Ferrand, France.
 17,966 A (1907). Tool for applying tires. *Same*.

- *17,980 (1907). Spring wheel with tread of elastic stud. A. Ibanez, New York.
 17,992 (1907). Pneumatic tire tread. E. Jeannerot and P. Perrin, Lyons, France.

THE FRENCH REPUBLIC.

Patents Issued (with Dates of Application).

- 391,235 (June 15, 1908). Michelin et Cie. Tire for bicycles and motor cycles.
 391,307 (June 18). E. Butterlin. Wheel with pneumatic cushion around hub.
 391,191 (June 13). J. Leibler. Sponge rubber cushion for the inside of boat beds.
 391,416 (May 27). G. Boladens. Tire.
 391,434 (June 20). Hodgson. Elastic tire.
 391,499 (June 20). R. Labruyère. Process for recovering the solvents in the machines for coating rubber coated fabrics, as well as in all similar or dissimilar machines used in other manufacturing lines.
 391,516 (June 20). P. L. Darolles. Elastic tire.
 391,547 (June 22). B. A. Godek. Rubber protective tire tread.
 391,436 (June 6). The County Chemical Co., Ltd., and Hill. Vulcanizer for tire repairs.
 391,685 (May 29). J. C. Casanova. Reinforced air tube for tires.
 391,709 (June 26). H. Swales. Wheel tire.
 391,843 (July 2). Flajollet. Elastic tire for wheels.
 391,710 (June 26). P. Gaedke and Schäffer. Means of attaching rubber heels.
 392,091 (July 7). J. S. Cushing. Elastic tire.
 391,895 (Sept. 9, 1907). A. Dabon. Process of attaching leather to rubber.
 392,021 (July 4, 1908). Michelin et Cie. Wheel and pneumatic for automobiles and other vehicles.
 392,111 (July 7). Fairhurst and Eastman. Cover for pneumatic tires.
 392,141 (July 9). J. Berliner. Vulcanizer for tire repairs.
 392,064 (July 6). T. Gare. Process for the manufacture of articles from rubber scrap.
 392,166 (June 29). A. Guérin. Cover for pneumatic tires.
 392,167 (June 29). Hassencamp and Boerner. Elastic tires.
 392,206 (July 10). H. Musclow. Air tube for tires.
 392,216 (July 10). M. J. Stavro. Pneumatic tire.
 392,163 (June 25). M. de Clevés. Construction system for bicycles in which the frame is only on one side of each wheel, which allows of replacing the pneumatic tires without unscrewing any nuts.
 392,233 (July 10). Collin and Huovila. Tire with multiple air tubes.
 392,324 (July 15). A. Cheradame. Elastic wheel with pneumatic tire.

[NOTE.—Printed copies of specifications of French patents may be obtained from R. Robert, Ingenieur-Conseil, 16 avenue de Villiers, Paris, at 50 cents each, postpaid.]

THE MADERO GUAYULE FACTORIES.

THE Messrs. Madero have often been mentioned in THE INDIA RUBBER WORLD as owners of vast tracts of guayule lands in Mexico and also as very large producers of guayule rubber.

In connection with Mr. Francisco Del Hoyo and Mr. H. V. Hernandez they estimate that they have something like 100,000 tons of guayule shrub on their own estates.

Through the courtesy of their New York representative, Mr. Ed. Maurer, a view of one of their rubber factories, situated at Parras, is here shown. This factory has a monthly output of 130 tons of rubber, while the combined production of all the eight Madero factories reaches a total of 350 tons of rubber per month, all of which is going into consumption as fast as it can be shipped. The Madero interests operate the following factories:

Compania Explotadora Coahuilense, S. A., Parras.
 Salvador Madero & Co., S. e. C., San Tiburcio (near Vanegas).
 Fabrica de Las Delicias, San Pedro.
 Fabrica de Hule Australia, Cuatro Ciénegas.
 Compania Ganadera de La Merced, Torreon and Gomez Palacio, operating three factories.

Their eight factories are running at present day and night to their full capacity and, as the Maderos never have made a practice of storing guayule but only produce what has actually been sold, it shows how well their guayule rubber has been received by the manufacturers in America and in Europe.

At the present rate of producing guayule rubber it is estimated that the first cutting will probably all be made into rubber within the next three years, but young fields are rapidly growing up which probably will furnish a new supply in from four to five years.

Very little coal is used in the factories of the Madero companies, the bulk of the fuel being the refuse guayule after the rubber has been extracted. The larger factories have their own machine shops, and in connection with them are quarters for the workingmen. Physicians are in attendance at the factories and in the guayule fields.

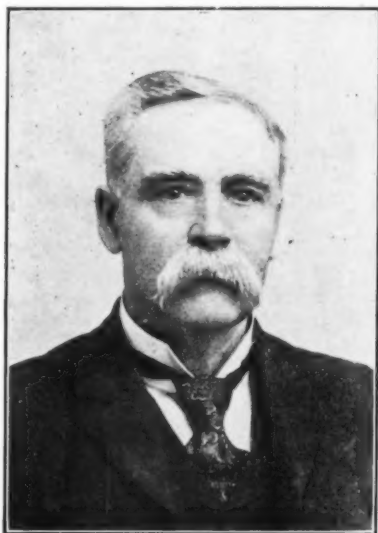
THE Brazil court at the Olympia Rubber Exhibition included a large specimen of Pará rubber. A member of the Exhibition Committee presented a £5 note to be awarded to the visitor who most nearly guessed the weight. The actual weight, 559 pounds, was guessed by a lady in Kensington. The *pelée* referred to was well worth attention on account of its size, but one which was despatched from Bolivia to the United States in 1893, for the Chicago World's Fair, but arrived too late for that occasion, weighed 1,181 pounds. It was exhibited for a long time in the window of the Goodyear's India Rubber Glove Manufacturing Co., on Broadway, New York.



Factories of Compania Explotadora Coahuilense, S. A., Parras, Mexico.

The Obituary Record.

CHARLES BILLINGS DICKINSON died in Brooklyn, N. Y., where he was long identified with the rubber industry, on November 29, in his eightieth year. He was born April 7, 1829 at Savoy, Massachusetts, and when he was still a boy his family removed to the nearby town of Conway, where he attended school with the late Marshall Field and the late William C. Whitney. The houses in which the two latter were born, by the way, are still standing at Conway. Young Dickinson engaged for a while in business as a traveling salesman for Yankee notions, in which he became widely known.



THE LATE CHARLES B. DICKINSON.

Mr. Dickinson is understood to have become interested in rubber manufacture in Brooklyn about 40 years ago. In 1870 he bought the interest of Mr. Gray in the firm of Holton & Gray, and in 1874 bought the interest of the other partner, Mr. Francis H. Holton, who afterward became associated with The B. F. Goodrich Co., and who is still living at Akron, Ohio. Mr. Dickinson described his factory as the Brooklyn Rubber Works.

For a number of years the business was located on Atlantic

avenue, in premises shown in an accompanying illustration. The output of the factory embraced druggists' sundries—many articles in which line Mr. Dickinson patented in the years 1883 to 1886—the lighter class of mechanical goods, mold work and the like. In April, 1890, Mr. Dickinson having become financially embarrassed, the premises described were dismantled and the effects disposed of at auction. He resumed business later, however, and continued to market some of his specialties until within the last three or four years.

Just before the period mentioned Mr. Dickinson sustained an accident in the streets of New York from the effects of which he lost completely the use of an arm and finally became incapacitated for business. The remainder of his life was spent mostly among friends at Ashfield, Mass. His death occurred at the home of his daughter, the wife of Charles R. Kearns, No. 830 President street, Brooklyn, whom she married in 1883. The daughter is the only immediate survivor.

Mr. Dickinson was a member of the Masonic fraternity and of the Episcopal church. The interment was at Ashfield.

Mr. Dickinson was really one of the pioneers in the druggists' sundries business, and was a contemporary of such men as Henry G. Tyer, Dr. Morris Mattson, and Francis H. Holton. He knew the rubber business in the old-fashioned way very thoroughly, and was the inventor of many specialties that were of considerable value. He was a bluff, hard-working, outspoken character who hated his enemies and loved his friends with all the fervor of a strong nature. His business was never a very large one—it was before the day of large companies—but at its best it was profitable and well conducted, and its founder was one who helped make the early history of the druggists' sundries business.

E. F. C. YOUNG.

EDWARD FAITOUTE CONDUCT YOUNG, regarded as the leading financier of New Jersey, died on December 6 at his home in Jersey City, in his seventy-fourth year. Primarily a banker, he became active in promoting transit facilities in New Jersey, and later was interested in numerous enterprises in New York. For over 30 years he was president of the First National Bank of Jersey City, and at the time of his death was an officer or director in twenty-four financial and industrial enterprises. He was president of the Joseph Dixon Crucible Co. and the American Graphite Co. He is survived by his wife, a son, and a daughter. His son-in-law, George T. Smith, is vice president of the Dixon company.

RUBBER SHOE OBJECT LESSONS.

RECENTLY the shoe trade in various parts of the country have been visited by the representatives of the Boston Rubber Shoe Co. for the purpose of demonstrating to the retail merchant how rubber boots and shoes are made. Going to a town where the company's goods are handled by a wholesale house, the representatives of the company invited the local retailers to attend a demonstration at which Mr. W. H. Palmer, of Boston, made up a rubber boot and overshoe, while Mr. J. J. Hawkins, also of Boston, delivered a lecture, not only descriptive of the processes being carried out, but giving also a general idea of the sources of rubber and processes through which the raw material must go before it is ready for use by the shoemaker. The material, of course, was cut out in advance of the demonstration, but all the processes of manufacture were carried out except, of course, the vulcanization. The newspapers in the various towns visited gave a liberal amount of space to these unique exhibitions.



THE LATE C. B. DICKINSON'S RUBBER FACTORY.

Official India-Rubber Statistics

For the United States Fiscal Year Ended June 30, 1908.

INDIA-RUBBER.

I.—Imports of Crude India-Rubber, by Countries.

From—	Pounds.	Value.
Europe:		
Belgium	3,016,462	\$2,053,369
France	1,561,182	1,040,504
Germany	2,821,104	1,980,639
Netherlands	160,856	111,619
Portugal	2,144,973	1,201,787
United Kingdom	6,809,622	4,745,201
Total	16,514,289	\$11,133,209
North America:		
British Honduras	16,886	\$11,972
Canada	32,821	19,893
Costa Rica	97,309	56,653
Guatemala	110,614	56,915
Honduras	102,010	65,865
Nicaragua	510,093	311,974
Panama	134,972	82,415
Salvador	20,224	12,200
Mexico	9,269,443	3,888,684
British West Indies	259	139
Cuba	378	27
Dutch West Indies	108	27
Total	10,295,207	\$4,506,998
South America:		
Brazil	32,645,173	\$19,284,856
Colombia	401,401	249,776
Ecuador	655,485	413,378
Peru	258,389	210,342
Uruguay	5,213	3,520
Venezuela	217,399	140,668
Total	34,183,060	\$20,302,540
Asia:		
Straits Settlements	921,411	\$332,082
Other British East Indies	316,076	335,870
Total	1,237,487	\$667,952
Oceania:		
Australia and Tasmania	40	\$36
Africa:		
British West	250	\$61
British East	2,827	2,389
Total	3,077	\$2,450
GRAND TOTAL	62,233,160	\$36,613,185
Total, 1906-07	76,063,838	\$58,919,981
Total, 1905-06	57,844,345	45,114,450
Total, 1904-05	67,234,256	49,878,366
Total, 1903-04	59,015,551	40,444,250

II.—Imports of Crude India-Rubber, by Customs Districts.

At—	Pounds.	Value.
Baltimore, Md.	210,595	\$56,180
Boston and Charlestown ..	623,181	395,776
Newport News, Va.	250	61
New York	57,618,236	34,716,816
Philadelphia	130	148
Galveston, Tex.	278	126
Key West, Fla.	157	127
Mobile, Ala.	8,289	5,712
New Orleans, La.	250,184	123,118
Pensacola, Fla.	115	58
Corpus Christi, Tex.	113,270	31,112
Paso Del Norte, Tex.	12,515	7,292
Salina, Tex.	3,291,115	1,210,320
Puget Sound, Wash.	40	36
San Francisco, Cal.	44,072	27,235
Champlain, N. Y.	14,721	10,682
Chicago, Ill.	18,355	13,819
Cuyahoga, Ohio.	8,761	4,811
Niagara, N. Y.	4,644	3,483
Vermont, Vt.	13,310	5,576
Louisville, Ky.	92	38
St. Louis, Mo.	850	659
Total	62,233,160	\$36,613,185

III.—Imports of Manufactures of India-Rubber, by Customs Districts.

At—	Value.
Baltimore, Md.	51,870
Boston	120,617
Fall River, Mass.	8,825
Newport News, Va.	3,750
New York	1,595,609

Philadelphia	37,661
Porto Rico	3,185
Providence, R. I.	1,679
Galveston, Tex.	4,710
New Orleans, La.	9,805
Tampa, Fla.	1,125
Hawaii	1,588
Puget Sound, Wash.	2,289
San Francisco, Cal.	15,166
Chicago, Ill.	33,385
Cuyahoga, Ohio.	2,156
Detroit, Mich.	13,476
Genesee, N. Y.	2,354
Milwaukee, Wis.	1,098
Cincinnati, Ohio.	2,061
Denver, Colo.	28,158
Indianapolis, Ind.	1,069
Kansas City, Mo.	2,457
Pittsburg, Pa.	1,058
St. Louis, Mo.	5,675
Other ports	4,862
Total	\$1,956,590

IV.—Imports of Manufactures of India-Rubber, by Countries.

[+ Indicates Increase; — indicates Decrease, compared with the preceding year.]

From—	Value.
Austria-Hungary	\$107,870 +
Belgium	101,750 +
France	539,480 —
Germany	737,278 +
Italy	115,639 +
Netherlands	937 —
Norway	3,587 +
Russia in Europe	12,768 —
Spain	197 —
Switzerland	417 —
United Kingdom	333,543 +
Canada	1,894 —
Mexico	195 +
Hongkong	235 —
Japan	415 —
Other Countries	385 —
Total	\$1,956,590
Total, 1906-07	\$2,262,783 +
Total, 1905-06	\$1,992,413
Total, 1904-05	1,389,064
Total, 1903-04	821,526
Total, 1902-03	665,972
Total, 1901-02	449,756
Total, 1900-01	478,663
Total, 1899-1900	564,083
Total, 1898-99	379,309
Total, 1897-98	309,247

V.—Exports of Manufactures of India-Rubber (and Gutta-Percha), by Customs Districts.

From—	Belting, Packing, and Hose	Boots and Shoea.	All other Rubber.
Baltimore, Md.	\$805	\$...	\$250
Bangor, Me.	2,845	1,056	1,086
Boston, Mass.	12,550	474,931	341,568
New York	781,834	1,041,260	2,333,782
Passamaquid'y, Me	3,506	295	2,104
Philadelphia	25,002	...	18,833
Mobile, Ala.	436	1,447	470
New Orleans, La.	8,888	1,507	2,631
Arizona	55,091	830	8,136
Corpus Christi	19,440	2,234	66,768
Paso Del Norte	46,224	269	19,110
Salina, Tex.	47,316	225	8,145
Alaska	15,828	27,331	1,204
Puget Sound	15,746	10,821	57,610
San Diego, Cal.	986	138	51
San Francisco	176,729	40,856	259,018
Buffalo Creek	110	...	134,622
Champlain, N. Y.	7,995	64	71,038
Detroit, Mich.	23,391	6,015	39,222
Huron, Mich.	467	629	7,372
Memphremagog	19,134	57	50,190
Minnesota	7,281	529	15,669
Montana & Idaho	1,762	10	1,010
Niagara, N. Y.	48,218	7,367	105,719
N. and S. Dakota	14,701	1,133	13,300
Oswegatchie	1,670	371	85,680
Superior, Mich.	1,876	...	320
Vermont, Vt.	5,678	509	89,146
Other districts ..	2,266	425	9,186
Total	\$1,347,775	\$1,614,290	\$3,743,040

GUTTA-PERCHA.

Imports of Crude Gutta-Percha, by Countries.

From—	Pounds.	Value.
Germany	143,261	\$78,391
Netherlands	17	13
United Kingdom	11,601	8,395
Canada	7,326	4,615
Panama	9,363	2,212
Colombia	12,619	3,552
Straits Settlements	4,413	3,125
Japan	10	2
Total	188,610	\$100,305
Total, 1906-07	546,890	\$201,339
Total, 1905-06	500,770	188,161
Total, 1904-05	665,217	210,188
Total, 1903-04	424,617	174,953

GUTTA-JELUTONG (PONTIANAK).

From—	Pounds.	Value.
Netherlands	19,950	\$2,969
United Kingdom	116,223	4,160
Straits Settlements	22,324,810	1,020,339
Dutch East Indies	341,620	12,308
Total	22,803,303	\$1,039,776
Total, 1906-07	28,437,660	\$1,085,098
Total, 1905-06	21,390,116	733,074
Total, 1904-05	19,104,911	641,319

[NOTE.—The imports of Gutta-percha credited to South America are undoubtedly Balata.]

SCRAP RUBBER.

I.—Quantity and Value of Exports by Countries.

To—	Pounds.	Value.
Belgium	41,104	\$11,224
France	375,068	33,014
Germany	451,279	53,382
Italy	159,186	16,226
Netherlands	48,202	6,417
Sweden	54,679	6,483
United Kingdom	1,527,456	208,882
Canada	1,568,413	114,006
Australia	398	63
Total	4,255,789	\$449,727
Total, 1906-07	4,756,621	\$548,695
Total, 1905-06 .....	...	339,507
Total, 1904-05 .....	...	204,945
Total, 1903-04 .....	...	534,500
Total, 1902-03 .....	...	404,586

a—Not officially reported.

II.—Quantity and Value of Imports by Countries.

From—	Pounds.	Value.
Austria-Hungary	105,480	\$9,668
Belgium	123,493	12,384
Denmark	239,681	24,369
France	1,095,170	103,133
Germany	3,660,805	345,987
Italy	28,032	1,353
Netherlands	246,037	23,203
Norway	228,435	23,250
Russia in Europe	4,694,731	427,662
Sweden	616,771	68,145
Switzerland	10,677	1,094
Turkey in Europe	342,340	32,392
United Kingdom	1,671,666	163,209
Bermuda	3,116	116
Canada	2,684,461	210,175
Newfoundland	20,766	2,298
Mexico	46,761	3,400
British West Indies	688	16
Cuba	95,816	9,686
Brazil	219,197	18,807
Guiana, British	1,041	82
Chinese Empire	60,333	3,537
Straits Settlements	16,775	5,232
Hongkong	120,036	6,434
Turkey in Asia	6,720	726
Australia	11,407	464
Total	16,331,035	\$1,496,822
Total, 1906-07	29,335,193	\$2,608,987
Total, 1905-06	24,756,486	1,721,678
Total, 1904-05	15,575,214	953,439

EXPORTS OF AMERICAN RUBBER GOODS, FISCAL YEAR ENDED JUNE 30, 1908.

EXPORTED TO—	Belting, Packing, and Hose.	Boots and Shoes.	Other Goods	Total
	Pairs.	Value.	Value.	Value.
Austria-Hungary	\$2,911	12,813	\$7,198	\$77,800
Azores, etc.	218	.....	.....	841
Belgium	4,806	200,634	102,800	55,088
Denmark	6,022	16,230	22,206	162,604
France	33,236	180,865	80,524	116,574
Germany	41,951	823,171	396,443	373,792
Greece	70	650	312	.....
Italy	770	139,934	71,959	64,412
Netherlands	4,976	892	779	108,918
Norway	2,065	22,568	10,807	3,709
Portugal .....	.....	.....	.....	490
Russia	11,575	5,184	3,432	10,150
Spain	2,303	20,816	10,731	3,974
Sweden	2,770	149,798	78,540	18,194
Switzerland	2,264	47,926	24,433	25,033
Turkey	50	151,131	74,731	8,170
United Kingdom	138,222	741,061	345,943	1,092,081
Total, Europe.....	\$254,209	2,553,673	\$1,233,238	\$1,981,697
NORTH AMERICA:				
Bermuda	\$268	114	\$57	\$1,654
British Honduras	558	258	150	445
Canada	176,909	43,577	60,204	634,574
Newfoundland	3,913	23,382	19,880	3,095
Costa Rica	5,981	174	156	5,767
Guatemala	5,502	110	110	2,698
Honduras	2,062	24	63	859
Nicaragua	2,712	30	16	1,909
Panama	55,604	2,863	2,024	26,207
Salvador	4,978	12	24	4,677
Mexico	272,173	5,420	5,233	197,766
Miquelon, etc. ....	.....	72	196	.....
West Indies, British...	5,861	405	265	15,262
Cuba	61,037	10,885	9,185	173,166
Danish	303	49	30	354
Dutch	48	72	48	626
Haiti	1,653	126	121	658
Santo Domingo	2,636	86	92	3,049
Total, North America	\$603,101	87,749	\$97,854	\$1,072,766
SOUTH AMERICA:				
Argentina	\$38,934	26,025	\$15,190	\$30,931
Bolivia	2,803	.....	.....	570
Brazil	11,861	32,576	18,962	29,044
Chile	11,616	9,951	7,177	16,744
Colombia	3,819	2,214	1,560	7,355
Ecuador	15,554	468	271	3,738
Guiana—British	1,414	1,048	483	4,925
Dutch	128	.....	.....	560
French	23	.....	.....	.....
Paraguay .....	.....	.....	.....	443
Peru	11,718	1,810	1,272	6,036
Uruguay	5,472	6,981	3,368	9,651
Venezuela	1,542	214	97	7,952
Total, South America	\$104,974	81,287	\$48,380	\$117,949
ASIA:				
Aden .....	\$.....	.....	.....	\$25
Chinese Empire	18,336	2,055	2,360	6,288
China-Japan	1,527	.....	.....	1,527
British India	8,559	708	444	6,584
Straits Settlements	3,841	.....	.....	3,722
Other British Indies .....	.....	.....	.....	720
Dutch East Indies	504	.....	.....	1,352
Hongkong	4,049	7,822	4,178	4,196
Japan	57,682	77,480	64,878	238,486
Korea	3,572	361	462	409
Russia	61	73	323	1,390
Siam .....	.....	1	1	137
Turkey .....	.....	18,946	10,034	144
Total, Asia.....	\$98,131	107,446	\$82,680	\$263,453
OCEANIA:				
Australia and Tasmania	\$108,309	186,366	\$98,887	\$122,507
New Zealand	30,275	42,728	35,232	51,282
Other British	83	.....	.....	16
French Oceania	208	1,292	1,076	775
German Oceania .....	.....	.....	.....	148
Philippine Islands	32,368	11,882	9,139	82,398
Total, Oceania.....	\$171,333	242,268	\$144,334	\$257,126
AFRICA:				
British, West	\$5,207	96	\$283	\$2,076
British, South	64,857	5,374	6,200	14,480
British, East	900	.....	.....	2,348
Canary Islands .....	.....	.....	.....	16
German Africa	329	.....	.....	479
Liberia .....	.....	128	75	13
Portuguese Africa	44,505	12	10	30,062
Egypt	139	2,022	1,138	575
Tripoli .....	.....	198	98	.....
Total, Africa	\$116,027	7,830	\$7,804	\$50,049
GRAND TOTAL.....	\$1,347,775	3,080,253	\$1,614,290	\$3,743,040
Grand Total, 1906-07.....	\$1,251,369	2,310,420	\$1,231,898	\$3,729,643
Grand Total, 1905-06.....	1,221,159	2,693,690	1,505,082	2,966,144
Grand Total, 1904-05.....	994,100	2,390,539	1,214,342	2,572,375
Grand Total, 1903-04.....	880,010	2,310,808	1,086,364	2,469,750

COMMENTS ON THE TABLE.

THE steady increase in the volume of exports of rubber goods from the United States for several years past is indicated by the following comparison, giving the totals at intervals of five years, besides which is shown the general distribution of the exports:

	1897-98.	1902-03.	1907-08.
Europe	\$833,003	\$2,234,442	\$3,469,144
North America .....	.....	1,183,389	1,773,721
South America	624,204	104,174	271,303
Asia	75,142	233,879	444,264
Oceania	109,486	295,953	572,793
Africa	82,027	124,514	173,880
	\$1,723,862	\$4,176,351	\$6,705,105

A comparison of the distribution of American exports of rubber goods last year with five years ago shows a gain in respect of every country in Europe to which such goods go with the exception of the Azores, Portugal and Spain. Fourteen countries show a gain. The three exceptions represent exports last year of only \$17,739 against \$36,663 five years ago. The total increase of exports to Europe over five years ago was \$1,234,702, about equally divided between belting, packing and hose, boots and shoes, and "all other." One striking increase is in exports of rubber footwear to Germany which increased from 289,777 pairs in 1902-03 to 823,171 pairs last year.

In North America exports have increased to Canada, Mexico, and Cuba. In South America the increase extends to all the countries on the list the most notable being in the case of Uruguay—\$1,182 to \$18,491. As to Asia, the increase applies mainly to China and Japan, and in Oceania to Australia. While exports to Africa have increased 50 per cent., the total is yet of comparatively little importance.

Doubtless these figures fall far short of the total export of products of the rubber factories of United States, since rubber enters into so many articles of export which are classed under other headings than rubber—electrical appliances, clothes wringers, talking machines, and very many other articles now being shipped in considerable quantities. This condition applies, however, to rubber goods exports from other countries, so that the figures presented here form a satisfactory basis for comparison with foreign statistics under similar headings.

INDIA-RUBBER GOODS IN COMMERCE.

EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of values of exports of manufactures of india-rubber and gutta-percha for the month of October, 1908, and for the first ten months of five calendar years:

MONTH.	Belting, Packing, and Hose.	Boots and Shoes.	All Other Rubber.	TOTAL.
October, 1908.....	\$123,075	\$113,608	\$310,382	\$547,065
January to October..	926,566	1,043,528	2,629,927	4,600,021
Total	\$1,049,641	\$1,157,136	\$2,940,309	\$5,147,086
Total, 1907.....	1,168,648	1,401,890	3,345,209	5,915,747
Total, 1906.....	994,883	1,077,009	2,702,861	4,774,753
Total, 1905.....	958,660	1,056,458	2,373,841	4,388,959
Total, 1904.....	724,916	988,025	1,976,519	3,689,460

THE Chiapas Land and Stock Co., incorporated under the laws of California, with a capital of \$100,000, stated to be fully paid, are located at Los Angeles, California, and have a property called "La Aurora" at Mapastepec, in the state of Chiapas, Mexico, being about 20 miles from the widely known "La Zacualpa" plantation. The company report having now in their property 40,000 planted rubber trees, ranging from 1 to 6 years, and to be planning to put 1,000 acres additional into rubber. H. J. Dike is president and J. T. Burton secretary. These gentlemen and the other officers of the company are substantial business men of Los Angeles.



PARA RUBBER PRICES FOR TWENTY-TWO YEARS (BASED ON HIGHEST NEW YORK PRICE DURING EACH MONTH).

THE RISE IN RUBBER PRICES.

THE chart of New York rubber prices which appears on this page is based upon the highest credible quotations during each month, for 22 years, for fine Upriver Pará. The figures upon which this chart is based, have been derived from the records of one New York house, and they are probably as trustworthy as can be obtained in the trade. It will be seen that the range of fluctuations in rubber is very wide; probably no other commodity shows such marked changes. It will be understood, of course, that rubber changes hands at the extreme figures only to a limited extent, but no matter how small the volume of transactions at the highest figures the quotation deserves to be mentioned as that the consumer would have to pay in case he were in need of rubber at the moment.

Concerning the frequent expression that the tendency of rubber prices is constantly upward this, of course, is not true from day to day, but only when applied to the market for a considerable period. To refer again to the chart, it will be seen that the highest quotation for any Pará grade at one time in 1889 was 62 cents. There was a rapid advance from this figure and many fluctuations occurred until, in the spring of 1894, "rock bottom" was reached again, at 66 cents. Rubber again went up and down until the highest price covered by the chart for more than a decade was reached—\$1.10½—from which there was a fall, not to the former low figures, but only to 70 cents. Six years later, owing to the recent financial depression, rubber again fell sharply, but this time only to 78 cents. The point to be made is that when from time to time an extreme decline is reached the limit is higher than on former similar occasions. There is not yet in sight any indication of what might be called stability in rubber prices, but if the history of the trade proves anything it is that in normal conditions rubber goes higher rather than lower.

One other point suggested by the chart is that very trivial matters apparently suffice to change the market violently, which is due to the fact that, while the rubber trade as a whole is of great importance and volume, the visible supply of raw ma-

terial is never large, and the best informed mind is unable to predict intelligently the extent of forthcoming supplies. The late John H. Cheever, a leading American rubber manufacturer, was accustomed to say that, so far as he could see, fluctuations in the crude rubber market were as apt to be caused by the sinking of a boat in the Missouri river as by anything else.

By the way, Mr. Cheever, when appearing once as a witness in legal proceedings in New York, submitted a statement of prices which he had paid for crude rubber during the years 1856 to 1881 inclusive, during which time the highest price reached for fine Pará was \$1.20, but this was during the Civil War, when gold was at such a premium as to make this paper money price equivalent to about 48 cents gold. Just 30 years ago, when the currency had been again placed on a gold basis, he was buying fine Pará at 50 cents. By the way, the lowest price which he reported paying for fine rubber was in March 1858—30 cents a pound. The price of Cartagena rubber was then 12½, and East Indian 15 cents. There is no record in the trade of lower prices having been reached since that date.

TENNIS GOODS IN WINTER.—Tennis shoes are among the rubber goods that are salable in many cities and towns during the winter time. The increase in gymnasiums, bowling alleys and other places for physical culture has created a demand for sneakers during the winter time. Some retailers hesitate to show these shoes in their window displays, for fear that their customers will consider them out of season. But they may properly be displayed in a special sale of rubber goods.—*Boot and Shoe Recorder.*

SAVED BY A STRETCH.—"You must have had some very narrow escapes from death in your eventful career," said an admirer to the great detective.

"I have had a few," he admitted, modestly. "Probably the closest shave I have had was when a band of South American outlaws hanged me, and went away without noticing that they had strung me up to a rubber tree."—*Brooklyn Life.*

The London Tire Show Season.

OLYMPIA MOTOR EXHIBITION.

AT the Olympia Motor Exhibition, in London, in the latter part of November, of which mention was made in the last INDIA RUBBER WORLD, there were more than 500 motor cars to be seen, representing the best productions of Great Britain, France, Germany and Italy, and including some American makes. As a motor car exhibit it was of great interest, while public attention was likewise bestowed liberally upon the varied display of tires, components, and accessories. In the latter department the specialties ran largely to detachable rims, detachable wheels and spare wheels.

THE TIRE EXHIBITS.

The importance of the tire feature has been referred to already. The principal tire exhibitors were, the figures referring to the "stand" numbers:

170. The Stepney Spare Motor Wheel, Limited, Llanely.—In addition to the Stepney wheel, with something new in patent flange attachment, the Stepney road grip pneumatic tire was shown, making its first public appearance. The tread of the Stepney tire is not vulcanized on, but molded in one part with the tire itself, under the new hydraulic process.
206. Louis Sgal, London.—Semi-solid tires used with lever springs and a machine for demonstrating the action of such springs in comparison with solid tires, compared with the ordinary suspension on pneumatics.
254. The Sirdar Rubber Co., Limited, London.—Soft molded endless tires, grooved solid motor tires, and tire sundries.
225. The Shrewsbury and Challiner Tyre, Limited, Manchester.—Pneumatic tires, solid tires, tubes, rims, and rubber matting.
256. Charles Macintosh & Co., Limited, Manchester.—"Kempshall" "Barker," and "Macintosh" tires.
257. Calmon Asbestos and Rubber Works, Limited, London.—Motor tires.
258. The Avon India Rubber Co., Limited, Melksham.—"Avon" tires and accessories.
259. Continental Tyre and Rubber Co. (Great Britain), Limited, London.—A full line of "Continental" tires and parts, including the new green colored tube [see THE INDIA RUBBER WORLD, December 1, 1908—page 107.]
260. The Palmer Tyres, Limited, London.—The full line of "Palmer" cord tires up to 7 inches; the "Palmer" cording machine, and other devices and specialties.
261. The Midland Rubber Co., Limited, Birmingham.—"Ajax" pneumatics, solid tires, attachable rims and the like.
262. H. M. Hobson, Limited, London.—"Jenatzy" and "Jenatzy-Houben" tires.
263. The Self-Sealing Rubber Co., Limited, Birmingham.—"Hermatic" tires and accessories.
264. Michelin Tyre Co., Limited, London.—"Michelin" compressed air cylinder twin tires and detachable rims.
265. Grose, Limited, Northampton.—"Grose" non-skidding and pneumatic proof studded tread, with new system of attachment.
266. The B. F. Goodrich Co., London and Akron (United States).—A full line of "Goodrich" motor tires and the "Goodrich" rubber studded non skid, which can also be fitted to other makes of tires, new or old.
267. J. E. Hopkinson & Co., West Drayton.—"Hopkinson" patent solid tires; quick curing rubber for repairs.
268. The New Motor and General Rubber Co., Limited, Harpenden and London.—"Warwick" motor tires in course of manufacture; "Rub-Metal" non skid vulcanizing compounds; prepared ducks; tire making and repairing plant complete.
269. Gaulois Tyres, Limited, London.—"Gaulois" pneumatics.

270. The Collier Tyre Co., Limited, London.—"Medallion" and "Collier" pneumatic tires.

271. David Moseley & Sons, Limited, Manchester.—"Detachable" plain and non skid tires, tough grey inner tubes; a great list of accessories.

272. Kempshall Tyre Co. of Europe, Limited, London.—"Kempshall" all rubber low pressure ribbed non skid tires.

273. North British Rubber Co., Limited, Edinburgh.—"Clincher" pneumatic and "Ducasable" cushion tires; solid tires for pleasure cars.

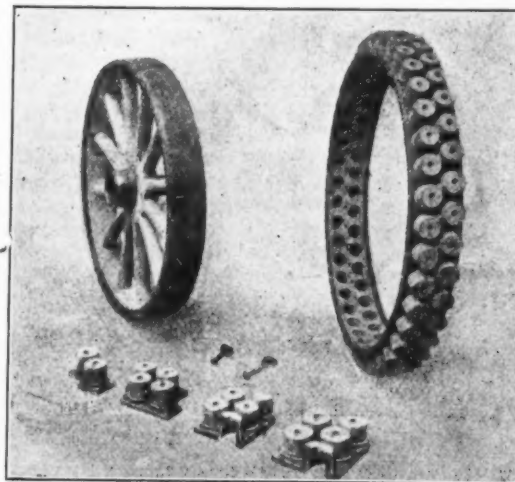
274. The "K. T." Syndicate, Limited, London.—The new "K. T." pneumatic tire; "K. T." rims.

275. The Dunlop Pneumatic Tyre Co., Limited, Birmingham.—The whole line of "Dunlop" tires, rims and accessories.

276. J. Liversidge & Son, Limited, London.—"Scott" non skid treads; "De Nevers" solid tires; "Sealomatic" inner tubes; "Vinot" detachable rims.

277. Prowodnik Tyre and Rubber Co., Limited, London.—"Prowodnik" pneumatic tires; solid red rubber motor tires.

278. Samson Leather Tread and Tyre Co., Limited, London.—



THE "K. T." TIRE.

The new "Cape Noire" tire composed of light cover with studded black rubber tread and the usual "Samson" specialties.

279. The Peter Union Tyre Co., London.—Usual types of tires and "Peter Union" simplex tires and rims.

280. Etablissements Hutchinson, London.—Standard tire types and "Hutchinson" wood fiber steel studded non skid.

SOME OF THE ACCESSORIES.

Throughout the exhibition were evidences of the variety and importance of products of the rubber factory in the accessories of motoring. In addition to miscellaneous rubber goods embraced in many of the tire displays, the following exhibits seem to merit attention, and this does not exhaust the list:

161. E. Kalker & Co., Coventry.—"E. K." insulated wires and cables for motor cars.

174. Siemens Brothers & Co., Limited, London.—"Siemens Obach" dry cells; rubber covered cables.

175. Hattersley & Davidson, Sheffield.—Tire pumps.

173. Motor Supply Co., Limited, London.—"Torkington" tires; inner tubes.

176. Universal Motor Imports, Limited, London.—"Gilbert" tire carriers. (American.)

182. Benetfink & Co., Limited, London.—Tires and accessories; motor clothing.
183. Glovegrove & Co., Limited, London.—"Otterma" non skid; motor clothing.
184. The Dunlop Rubber Co., Limited, Birmingham.—Wide range of motor clothing and rubber automobile accessories.
195. The Rotax Motor and Cycle Co., London.—"Rotax" vulcanizer for use of steam without a boiler.
199. A. W. Gamage, London.—Non skids; mechanical and compressed gas tire inflators.
201. J. B. Brooks & Co., Limited, Birmingham.—Tire boxes; spare tire wrappers.
209. Harvey Frost & Co., Limited, London.—The "H. F." vulcanizer; vulcanizing materials.
211. Markt & Co., London.—"Unique" portable vulcanizer.
221. The Parsons Non Skid Co., Limited, London.—"Parsons" non skids; detachable rims.
224. The Acetylene Illuminating Co., Limited, London.—"Scioco" tire inflators.
252. R. & J. Pullman, Limited, Godalming.—"Pullman" non skid bands; "Pullman" tire lever.

CYCLES AND TIRES AT THE STANLEY SHOW.

THE thirty-second yearly Stanley Show at Royal Agricultural Hall, London, November 20-28, 1908, was such an exhibition of bicycles and accessories as America has not seen for many a day. No other evidence is needed of the strong hold which cycling has on Great Britain. In fact the thirty-second Stanley Show was even more complete than for several years past—perhaps fuller than in any previous years, except 1898 and 1899, when cycling trade and sport reached their zenith.

These facts are all the more notable in view of the standardization of the bicycle and the absence of novelties in construction. Inventors have not been idle, however, in the field of accessories and fittings, and the object of many accessory makers seems to be to provide means for cyclists to use their machines with a minimum amount of trouble, since the modern cyclist resents being called upon to do as much to his machine as the old-time riders.

One section of the hall was devoted to a comprehensive but small exhibit of motor cars, and in an adjoining building an American team of cycle polo players gave an exhibition of their skill daily.

The total number of exhibitors at the Stanley Show was 252—including cycles, motorcycles (which appeared in larger number than before), components, accessories, parts, and machinery. Many of these exhibits were very extensive, it not being unusual for some to occupy several spaces.

A feature of the Show was the announcement of prices of the wheels on exhibition. Thus the James Cycle Co. showed 18 models marked at figures ranging from £16 16 [= \$81.75] down to £5 10 [= \$26.77]. The Rover Co. also exhibited 18 models, ranging in price from £15 15 downward; the New Hudson Cycle Co., Limited, 20 models, marked from £14 14 down; the Humber, 20 models from £14 down, and so on.

The rubber trade was well represented by the standard makers of tires, both English and Continental, and by a number of firms who make a speciality of trading in tires, and it was not an unusual thing to see half a dozen or more tire models offered by one company. The Dunlop company were not exhibitors in the sense of occupying a "stand," but their tires appeared on hundreds of bicycles throughout the building, and this fact was not allowed to escape the visitor.

LIST OF THE TIRE EXHIBITORS.

The Midland Rubber Co., Limited.....	Birmingham
Palmer Tyre, Limited.....	London
India-Rubber, Gutta-Percha and Telegraph Works Co., Limited.....	London
North British Rubber Co., Limited.....	Edinburgh
Capon, Heaton & Co., Limited.....	Stirchley
Great Eastern Rubber Co.....	London

East London Rubber Co.....	London
Self Sealing Rubber Co.....	Birmingham
The Gorton Rubber Co., Limited.....	Openshaw
Leicester Rubber Co.....	Leicester
W. & A. Bates, Limited.....	Leicester
Coventry Rubber Co.....	Coventry

Representing Firms on the Continent.

Bavarian Rubber and Asbestos Works.....	London
Continental Motor Co.....	London
Michelin Tyre Co., Limited.....	London
Continental Tyre and Rubber Co., Limited.....	London
Calmon Asbestos and Rubber Works, Limited.....	London
Etablissements Hutchinson.....	London
Peter Union Tyre Co.....	London
The Polack Tyre Co.....	London
Hanover Rubber Co.....	London

There were other rubber items to be seen than tires, tubes and repair outfits. There were rubber sponges from Germany, "Silvertown" rubber tiling, various forms of sporting goods, and of course waterproof goods, because when the Britisher wants to go out on a wheel he refuses to be deterred by the weather.

A GOODRICH PRESSROOM.

PROBABLY no house in the world has devoted more attention to the scientific manufacture of small molded goods than have The B. F. Goodrich Co. (Akron, Ohio). How many hundreds of presses they operate does not appear, but the writer remembers one battery in which there were 150 in line. The



A PRESSROOM AT THE B. F. GOODRICH CO.'S FACTORY.

illustration accompanying this shows a portion of one of the press rooms. It is shown particularly to call attention to the method of ventilating. Under each press is a large galvanized iron pipe leading to a still larger main from which air is constantly extracted. This draws not only the hot air but the gases freed by vulcanizing away from the workmen, and delivers them into the open air many feet distant.

A PARAGRAPHER in one of the monthly reviews has been very much impressed with the various inventions of Mr. C. J. Bailey, and particularly with his rubber exerciser. Indeed he attributes all of Bailey's good looks and excellent physique to its use. This is what he says: "On that day I chanced to meet Mr. Bailey, and I could readily see that he was in himself an excellent advertisement of his exerciser. Health, muscle and good red blood had evidently been the gifts imparted by the use of the new rubber invention, which I learned was devised on the basis of the old but never to be despised motion of 'sawing wood.'" Whether Bailey uses the exerciser himself nobody knows, but he is continually "sawing wood" at the old stand, and incidentally making a notable success of his specialties.

Tires at the New York Automobile Show.

THE first of the two great automobile shows scheduled for New York this season is in full blast as THE INDIA RUBBER WORLD reaches its readers this month. The formal opening was on New Year's eve. With the exception of a few hours of the evening of the last day of the year New York had no automobile show during 1908, the last preceding shows having been held between October 24 and November 9, 1907.

The show now in progress at the Grand Central Palace is announced as the Ninth International Automobile Show, under the management of the American Motor Car Manufacturers' Association, with the Importers' Automobile Salon and Motor and Accessory Manufacturers. Hitherto these exhibitions have been announced as under the auspices of the Automobile Club of America, with the participation of the American Motor Car Manufacturers' Association. The automobile shows this year promise to be of even greater interest than in the past. Not even the financial crisis of the past year served to lessen the activity of the automobile industry, and there are many indications of steadily increasing interest on the part of the public in motoring. Not only the thousands of car owners, but the greater number of thousands who hope to be, seem attracted always by an automobile show, besides which these are affairs coming in New York to have a distinct character as "society" events.

Not only are the leading American cars on exhibition at the Grand Central Palace, but a number of foreign exhibits which have come direct from the Paris Salon giving the show a more truly international flavor than has been true of any predecessor. The managers of the leading New York hotels have recognized the importance of the automobile shows and several hotels have

been decorated specially for the show week, which ends on January 7.

The tire exhibits are as numerous as ever, and while to the casual observer there may appear an absence of novelties, a closer view will reveal evidences of painstaking work on the part of the tire people to improve their product, with a view to increasing the comfort or the safety of motoring. There are new tire fabrics, new non skidding features, new demountable rims and spare wheels, and so on. It has been a year of progress in tire making as in the other details of the automobile industry, and the tire exhibits may be expected to come in for a good share of public interest.

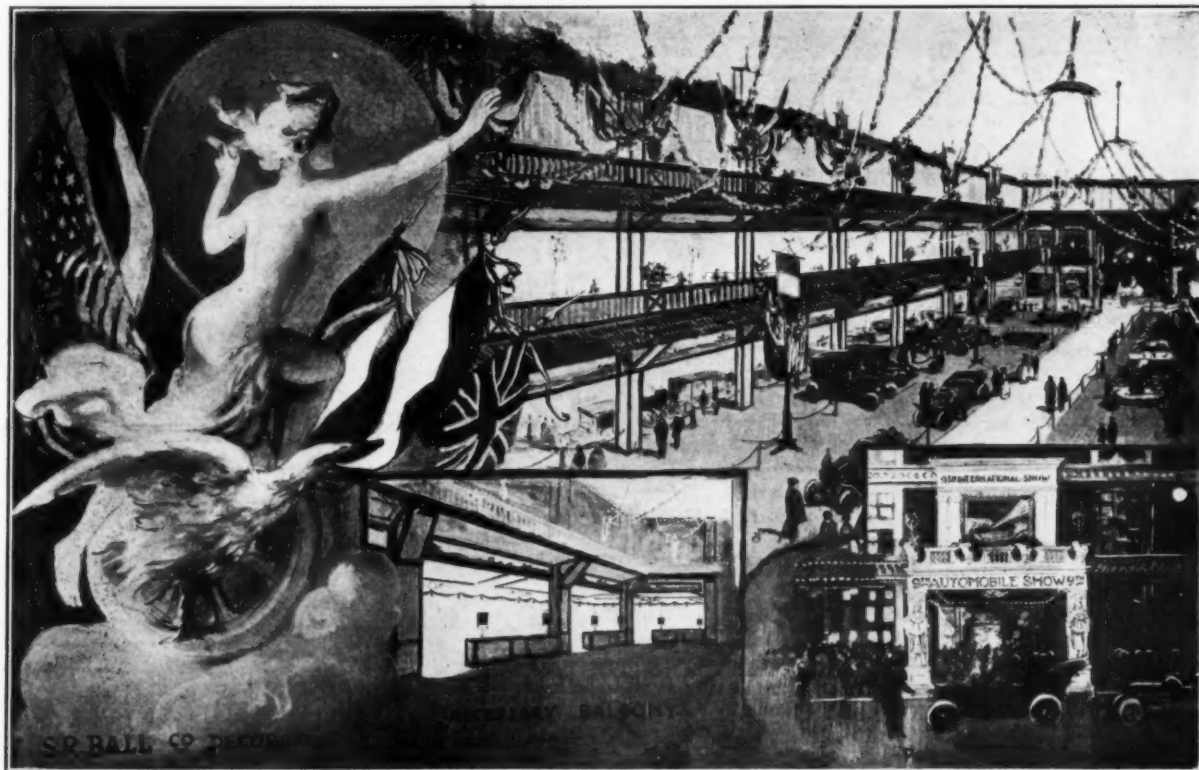
SOME OF THE TIRE EXHIBITS.

THE AJAX-GRIEB RUBBER Co. (Trenton, New Jersey) make a complete exhibit of Ajax tires in all sizes. A feature of the display is a new Ajax non skid type of novel construction, insuring great wearing quality.

CONTINENTAL CAOUTCHOUC Co. (New York). The feature of this exhibit is the demonstration of the advantages of carrying Continental tires already inflated on spare rims.

THE DAYTON RUBBER MANUFACTURING Co. (Dayton, Ohio) exhibit their Dayton airless clincher tire in a somewhat modified form as compared with their 1908 product. This tire is cured complete in one operation, so that the internal columns are integral with the cover, and therefore will not separate from the cover; nor will it crush down.

THE DIAMOND RUBBER Co. (Akron, Ohio). This exhibit includes the usual line of Diamond quick detachable and regular clincher tires, and Diamond tires of the mechanically fastened



MAIN COURT AND DECORATIVE PLANS—GRAND CENTRAL PALACE AUTOMOBILE SHOW.



GRAND CENTRAL PALACE AUTOMOBILE SHOW.

[One of the five mammoth oil paintings which adorn the walls of the lobby.]

or Fisk type; also the Marsh quick acting rim, Diamond demountable rim, and solid tires for trucks and for high wheeled automobiles.

THE FISK RUBBER CO. (Chicopee Falls, Massachusetts) exhibit a line of automatic tires consisting of the bolted on type, clincher type for regular clincher rims, and quick detachable clincher type to fit all standard quick detachable rims. They also exhibit a removable rim in connection with the bolted on tire. There is a bolted on tire 6 x 40 inches, designed for fire department use for chemical engines. A demonstration is made of taking a tire off and replacing it with a new tire ready for use in 22 seconds.

G & J TIRE CO. (Indianapolis, Indiana) exhibit G & J round tread regular clincher and quick detachable automobile tires, Dunlop round treads, and all the various types with the Bailey treads. The standard universal quick detachable rim is shown fitted for clincher and Dunlop types.

THE B. F. GOODRICH CO. (Akron, Ohio) exhibit the regular line of Goodrich clincher automobile tires and Goodrich quick detachables in all sizes and styles of tread. In addition they show the Palmer web tire for electric vehicles, a distinct novelty. The company announce the Goodrich improved fabric, which will be used in the construction of all their tires this year. This fabric, in their estimation, marks the greatest improvement in tire construction since the beginning of the industry increasing as it does very materially the strength of the tire and minimizing the possibility of blow-outs. The process for adding to the strength of the tire fabric is a secret one.

THE GOODYEAR TIRE AND RUBBER CO. (Akron, Ohio) are featuring the Goodyear air bottle, making demonstrations at their booth. This is a steel bottle charged with air, and when it is desired to inflate a tire it is only necessary to attach the tube from the bottle to the tire valve and allow the tire to fill to the pressure required. Another feature of the exhibit is a new endless tire, with hard rubber base, for motor trucks. The retaining wires are imbedded in hard rubber which removes the liability of the wires to tear out.

MORGAN & WRIGHT (Detroit, Michigan), in addition to their standard types, exhibit a new heavy flat tread tire, the standard universal quick detachable rim, and an improved electric tire. The new heavy tread is distinguished by its breadth and thickness, which give it increased traction surface and wearing qualities. The rim referred to is operated simply by snapping or unsnapping a locking ring, there being no turnbuckles or wrenches.

PENNSYLVANIA RUBBER CO. (Jeannette, Pa.) This exhibit includes the company's standard wrapped tread tire which remains the same as last season except that a new compound is used for the tread with a view of adding to the life of the tire. A flat tread full molded tire of racing type and somewhat heavy construction is shown. Steel studded non skid treads are also shown. The exhibit includes four types of motorcycle tires, some of which are new.

THE SWINEHART CLINCHER TIRE AND RUBBER CO. (Akron, Ohio), in addition to their regular automobile tires, show for the first time this season a new rim attachment utilized as a spare tire. This makes it possible to attach the Swinehart tires mounted on clincher rims to any wheel without altering the original rim equipment. By attaching tires in this manner the same height of wheel is maintained as by the tire it replaces, so that a Swinehart cushion tire can be used in connection with three pneumatics without changing the level of the car.

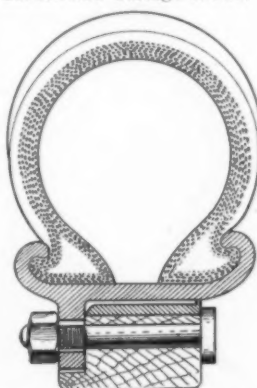
CONSOLIDATED RUBBER TIRE CO. (New York), exhibit their Kelly-Springfield solid tire and the Kelly-Springfield sectional tire for commercial motor vehicles. The latter is made in sizes from 3 inches to 8 inches, and can be used singly or in twin form. They have been applied to motor trucks weighing up to five tons. The Consolidated Company are also taking on the manufacture of pneumatic tires.

Other entries of tire exhibits are made by the following:

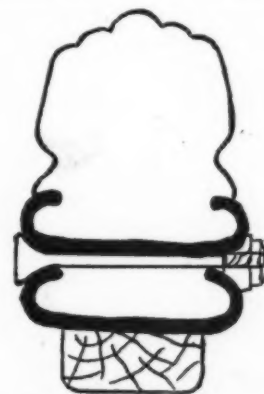
Dow Tire Co.	.....	New York
Empire Automobile Tire Co.	.....	Trenton, New Jersey
Firestone Tire and Rubber Co.	.....	Akron, Ohio
Hartford Rubber Works Co.	.....	Hartford, Connecticut
Leather Tire Goods Co.	.....	Newton Upper Falls, Mass.
Michelin Tire Co.	.....	Milltown, New Jersey
Motz Clincher Tire and Rubber Co.	.....	Akron, Ohio
Newmastic Tire Co.	.....	New York
The Republic Rubber Co.	.....	Youngstown, Ohio
Ennis Rubber Manufacturing Co.	.....	Newark, New Jersey
Healy Leather Tire Co.	.....	New York
Spare Motor Wheel of America, Limited.	.....	New York

The ninth annual show of the Association of Licensed Automobile Manufacturers will be held in the Madison Square Garden, beginning Saturday evening, January 16, and continuing open until the following Saturday evening.

The tire exhibits referred to as appearing at the Grand Central Palace will, as a rule, be repeated at the Madison Square Garden and Chicago shows.



"DIAMOND" DEMOUNTABLE
RIM.



SWINEHART QUICK RIM
ATTACHMENT.

The Editor's Book Table.

HEVEA BRASILIENSIS OR PARA RUBBER. ITS BOTANY, CULTIVATION, CHEMISTRY AND DISEASES. By Herbert Wright, A. R. C. S., F. L. S. . . . Third edition. Colombo: A. M. & J. Ferguson. London: McLaren & Sons. 1908. [Cloth. 8vo. Pp. xvii + 304 + 90 plates. Price, 10 shillings, net.]

THE mere fact of the publication of such a substantial book as this, from so competent a pen and with the imprint of a house of such standing, would argue the importance of rubber culture. The point is strengthened by the fact that a third edition has been brought out so soon after the appearance of the first, each more elaborate than its predecessor.

The author, as our readers know, is a man of scientific training who spent several years in Ceylon in an official position which required his attention to questions connected with rubber planting. He is, therefore, possessed of much first hand information on this interest, in addition to making systematic use of such authentic data as has been available from other sources.

The present volume exceeds the second edition by 125 pages of text and 35 full page plates, on separate leaves. The added space is divided among all the chapters of the book, showing evidences of careful revision. There is much additional information under nearly every heading, including statistics of yield, etc., brought down to the latest possible date before publication. The illustrations consist in large part of views from photographs of planted *Hevea* trees under varying conditions, sketches of tapping tools and mechanical apparatus for dealing with latex and preparing rubber for market. Separate chapters appear in this edition on "Botany of the Para Rubber Tree" and "Effect of Tapping on Trees," which are treated more fully than before.

For those who have not seen the book it may be described as a general description of the Para rubber tree in its forest habitat and under domestication; a brief history of its introduction into the Far East; a record of the growth of the rubber planting interest; and a summary of plantation methods, processes and apparatus, and the results attained. The estimates of rubber planting costs, in Ceylon and elsewhere, with which the volume closes, doubtless are not intended to be followed closely in any case, but they are at least of interest to the prospective planter in pointing out the various headings under which outgo may be necessary before an income is derived from a rubber estate.

A PERSONAL NOTE.

I FIRST met Herbert Wright some years ago at the experiment station connected with the Royal Botanic Gardens at Peradeniya, Ceylon. It was about as hot as it ever gets in that country, which is saying much.

Wright ran me over the gardens, showing me all they were doing in rubber, with an energy and enthusiasm that was really delightful. Later I got a letter from him saying that he had accepted the post of editor of the *India-Rubber Journal* in London, and I was glad of it. Certainly he has made a much better paper of that estimable journal, and then there is another thing that I like about him. When he borrows anything from my own paper he says "From THE INDIA RUBBER WORLD," and not "We take the following from a New York contemporary." In other

words, people know it is THE INDIA RUBBER WORLD, and do not have to spend time guessing whether it is from *Zion's Herald* or the *Ladies' Home Journal*.

Mr. Wright is a young man, being but 34 years old, and yet he has done much. For training he prepared at the Royal College of Science in London, and the London University under Professor Dr. Tilden, F.R.S. Later he toured through the Far East to study rubber plantation development, then he spent nearly seven years as an official at the Botanic Gardens at Peradeniya, studying economic plants, and especially those yielding India-rubber.

As a writer, Mr. Wright takes high rank, and is the author, in addition to "Hevea Brasiliensis," of the following well known works: "Science of Para Rubber Cultivation," "Rubber Cultivation in the British Empire," "My Tour in Eastern Rubber Lands," "The Genus *Diospyros* (ebony) in Ceylon; Its Morphology, Anatomy and Taxonomy," "Theobroma Cacao; Its Botany, Cultivation, Chemistry and Diseases."

Mr. Wright is not only an editor and author but is much of a business man. He is director and consulting botanist of a number of rubber companies, among which may be mentioned Java Rubber Plantations, Langkat (Sumatra) Rubber Co., and Glen Berrie Rubber Co. H. C. P.

THE CEYLON HANDBOOK AND DIRECTORY and Compendium of Useful Information, to Which is Prefixed a Statistical Summary for the Colony, and Review of the Planting Enterprise Up to July, 1908. Compiled . . . under the direction of J. Ferguson, C.M.G., M.L.C. . . . Colombo: A. M. & J. Ferguson. 1908. [Cloth. 8vo. Pp. LII + 1559 + LV. Price, £1. 1s.]

THIS exceeding full and carefully prepared annual, now appearing for the forty-sixth consecutive year, exceeds last year's issue by 133 pages. The book is arranged on the usual plan, and the increased bulk is due mainly to the growth of Ceylon planting and trade, one of the most important features of which is the new interest, rubber culture. Mr. Ferguson estimates the approximate area under rubber in the colony on July 31, 1908, at

180,000 acres, an increase of about 30,000 within one year. The acreage under rubber alone is 129,565, which compares with 614,023 as the total area under cultivation in Ceylon. There has been an increase of the acreage of rubber planted in tea and in cacao. It is estimated that the rubber exported from Ceylon represents the product of about 10 acres per ton, from which it is easy to calculate the possible production there if all the rubber now planted should ever come "into bearing" at the same rate. The "Handbook" contains full particulars regarding all rubber and other estates in Ceylon, company details, addresses of individuals, and official statistics. Again we desire to congratulate the Messrs. Ferguson upon the excellence of their "Handbook."

GRAPHITE. ITS PROPERTIES, OCCURRENCE, REFINING AND USES. By Fritz Cirkel, M.E. Ottawa: 1907. [Paper. 8vo. Pp. 11 + 307 + plates and maps.]

THIS valuable monograph has been prepared and is issued under the auspices of the department of mines of Canada in which country a considerable amount of graphite of good quality is found, though of course not in quantities comparable with what is found in Austria and Ceylon. The work is a general summary on graphite, whatever its sources or uses, il-



HERBERT WRIGHT, A.R.C.S., F.L.S.

illustrated with views of mining and refining operations and maps of the regions yielding the material. It may be of interest to note that of the world's production of graphite, approximately 4 per cent. is used for pencil leads and 3 per cent. each for graphite packing and graphite paint. The largest use is still for such refractory articles as crucibles. This work is a companion volume to a report on Asbestos, by the same author, reviewed in THE INDIA RUBBER WORLD, May 1, 1906 (page 246).

NEW TRADE PUBLICATIONS.

THE MECHANICAL RUBBER CO. issue a new general catalogue of the products of their Cleveland Rubber Works which is very much more than a mere trade list. It might better be described as a useful handbook and work of reference for users of Mechanical Rubber Goods. The book embraces sections relating to belting, hose and fittings, packings, mats and matings, plumbers' specialties, and other molded and mechanical rubber goods. Any section may be obtained separately, if desired. Though this catalogue is illustrated profusely, it is stated by way of introduction that "it is no longer possible to illustrate in a catalogue of conventional size anything like a complete representation of our entire line." The Hose section of 40 pages mentions 36 varieties of hose—acid, brewers', garden, fire, and so on—with almost innumerable brands under each heading, and the other sections of the catalogue involve a like variety of goods. [6½" x 9". 200 pages.]

G & J TIRE Co. (Indianapolis, Indiana) issue "Automobile Tires—1909," being an illustrated price list of their automobile tires and of a varied assortment of tire accessories. [5½" x 9¾". 16 pages.]

GUAYULE RUBBER is the title of a brochure describing the development of the guayule rubber interest and giving an account of the production of guayule rubber by the Madero interests in Mexico. A number of good illustrations are included. The booklet is distributed by the company's New York representative, ED. MAURER. [8¼" x 6½". 31 pages.]

NATIONAL INDIA RUBBER CO., (Bristol, Rhode Island), issue a new catalogue of druggists' sundries and miscellaneous rubber goods, which is an exceedingly attractive piece of work. It is likewise interesting, on account of the variety of articles illustrated, and the apparent endeavor to render even such prosaic articles as water bottles and syringe bags pleasing in appearance. Some very handsome mats are pictured. [6" x 9". 79 pages.]

J. P. WILLIAM & BROTHERS (Henaratgoda Ceylon), issue a new circular (No. 33), devoted to the three new species of "Maniçoba" rubber from Bahia, and particularly *Manihot dichotoma*, or Jeque maniçoba rubber, which has begun to attract attention in Ceylon, and of which they are prepared to supply seeds and plants. [5½" x 8½". 8 pages.]

ALSO RECEIVED.

"JIFFY" Fire Hose Rack Co., No. 727 Seventh avenue, New York.—"Jiffy" Fire Hose Rack. 44 pages.

The B. F. Goodrich Co., Akron, Ohio.—A new Tire for Electrica.—Palmer Web. 8 pages.

Consolidated Rubber Tire Co., New York and Akron, Ohio.—Kelly-Springfield Sectional Tires or Commercial Motor Vehicles. Price List. 8 pages.

GOLF IN AMERICA.

THE twentieth anniversary of the St. Andrew's Golf Club, the pioneer organization of the kind in America, was celebrated by a dinner at Delmonico's, in New York, on the evening of December 10. Some of the most notable golfers in the country were present, including John Reid, the first president of the club. Mr. William H. Taft, president elect of the United States, and who will be the first golfing president, was invited but sent regrets. The founders of St. Andrew's Club did much to promote the popularity of the ancient and royal game in America,

and deserve the lasting good will of the rubber trade on account of the demand which has been built up for balls.

TRAINING DOGS AS CADDIES.

THE heavy percentage of loss of golf balls on the links has led a dog trainer in Pennsylvania to train several dogs to act as caddies. A dog, he says, never tires of the game, but will return a ball to the feet of his master repeatedly, and still be eager to continue the performance. There is no record yet of one of the canine caddies having secreted a ball with a view to realizing cash for it. If this new employment for dogs should become general it may lessen the demand for new golf balls to a degree which will not be relished by the manufacturers.

RUBBER FROM THE IQUITOS REGION.

THE Peruvian Amazon Co., Limited, opened subscription lists in London on December 7 for £130,000 of their 7 per cent. participating preference shares, to provide for the further extension of their rubber exploitation work in the region above Iquitos, in Peru. The company was registered September 26, 1907 [see THE INDIA RUBBER WORLD, November 1, 1907—page 54], with £1,000,000 capital, of which £300,000 is in preference and £700,000 in ordinary shares, of £1 each.

The business was founded in 1889 by Julio Cesar Arana. In 1893 a house was opened at Iquitos. In 1903 the partnership of J. C. Arana y Hermanos (J. C. Arana & Brothers) was formed, and a house opened also at Manaos. The business was transferred in 1907 to the English company here noted, the directorate of which includes Julio C. Arana, of Iquitos, and Abel Araco, of London, two partners in the vendor company. The purchase price was stated at £780,000, payable (1) £50,000 in preference shares, (2) £30,007 in cash, and (3) £699,993 ordinary shares.

The Peruvian Amazon Co., Limited, own large freehold rubber yielding estates convenient to Iquitos, the exploitation of which has been very profitable. The trading profit for the last year before the formation of the new company is stated at £126,424 8s 1d. A large part of the yearly profits, it is claimed, has been devoted to the permanent development of the estates. In addition to these assets the Messrs. Arana have transferred to the company their rights in the Putumayo district, sovereignty over which is now in dispute among Peru, Colombia, and Ecuador. It is stated that whatever may be the political bearing of a final decision, it will not affect the rights of the settlers, but in the accounts quoted in the company's prospectus, results from trading on the Putumayo are not included. The Messrs. Arana are stated to have expended £500,000 in developing this region, where 45 rubber gathering centers are maintained. Their exports of rubber from the Putumayo alone have been, for 8 calendar years:

	Pounds.		Pounds.
1900	33,600	1904	768,320
1901	120,960	1905	1,052,800
1902	275,520	1906	1,397,760
1903	450,240	1907	1,350,720
1908 (first six months)			883,012

The rubber referred to in this article is not subject to the Brazilian export duty, which amounts to upward of 20 per cent., *ad valorem*, but only to the Peruvian duty of about 2¼ pence [=4.05 cents] per pound in weight.

THERE has lately been under study at Kew a plant, the introduction of which on rubber estates in Malaya is reported to have had a favorable effect in counteracting the growth of the pestiferous "alang" grass.

PENCILS WITH RUBBERS.—The Joseph Dixon Crucible Co., lead pencil makers, some time ago sent out circular letters to a large number of pencil users, requesting expressions as to their preferences in relation to a number of details. One result is that 10 per cent. of the responses were from those who prefer pencils with rubbers.

The Rubber Trade In Canada.

CANADIAN imports of india-rubber manufactures for the fiscal year ended March 31, 1908, are officially stated to have been in value as follows:

	United States.	Great Britain.	Other Countries.	Total Value.	Duties Collected.
Boots and shoes...	\$58,008	\$309	\$88	\$58,405	\$14,603
Belting	34,969	685	...	35,654	9,755
Clothing and water-proof cloth	15,385	63,925	559	79,869	20,099
Hose	50,159	3,520	23	53,702	18,445
Packing and mats.	72,656	3,979	66	76,701	26,371
Tires	81,555	10,326	2,218	94,099	32,396
All other	353,575	99,616	46,503	499,694	128,239
Total	\$666,307	\$182,360	\$49,457	\$898,124	\$249,908
Total, 1906-07.....	450,939	86,999	31,073	569,011	158,245
Total, 1905-06.....	680,014	99,695	32,034	811,743	100,879
Total, 1904-05.....	634,422	164,996	26,071	825,390	213,607
Total, 1903-04.....	617,471	334,646	26,098	978,215	256,210
Total, 1902-03.....	573,421	446,811	25,579	1,045,811	253,873

[NOTE.—The totals given here for the previous five years are for fiscal periods ending June 30. The year now dates from April 1.]

The principal imports from "Other Countries" were from Germany (\$27,815) and Austria-Hungary (\$15,691).

There may also be noted the following imports, not classified by the customs as "rubber goods," but having a relation to the industry:

	United States.	Great Britain.	Other Countries.	Total Value.	Duties Collected.
Webbing, elastic and non elastic...	\$131,393	\$62,764	\$10,568	\$138,358	\$27,672
Stockinettes for rubber footwear.	49,801	53,473	.....	103,474	7,524
Duck for rubber hose	66,568	7,875	.....	74,443	free
Rubber thread....	1,565	.....	.....	1,565	free

EXPORTS OF CANADIAN RUBBER GOODS.

To—	Value.	To—	Value.
Great Britain	\$53,673	Chili	\$4,549
Australia	47,813	Argentina	472
New Zealand	36,011	Belgium	1,024
Newfoundland	27,463	Other Europe.....	2,321
British Guiana	1,341	United States.....	39,394
Other British.....	1,591	All other	179
Japan	15,295	Total	\$239,983
Italy	8,857		

Export Totals for Former Fiscal Years, Ending June 30.

1901-02	\$322,572	1904-05	\$170,359
1902-03	142,891	1905-06	266,504
1903-04	128,067	1906-07	148,027

Exports Classified—1907-08.

Belting	\$661	Mats and matting....	\$98
Hose	8,633	Clothing	50
Boots and shoes.....	160,712	All other	69,829

Exports to the United States.

Belting	\$403	Boots and shoes.....	\$5,488
Hose	2,555	Not specified.....	39,948

IMPORTS OF RAW MATERIALS.

	Pounds.	Value.
India-rubber and gutta-percha.....	2,556,241	\$2,201,874
Reclaimed rubber; substitutes; hard rubber in sheets.....	2,969,298	729,011
Rubber powdered and rubber waste.....	2,979,516	395,748
Total	8,505,055	\$3,326,623

STATE OF THE FOOTWEAR TRADE.

THE advance in the cost of crude rubber is just now engaging the serious attention of Canadian manufacturers, although the season 1908-09 has been completed for some time. The feeling prevails that prices of manufactured goods will prove

strong for the coming season, though an advance is scarcely looked for. Up to date, the retail trade has been complaining of unseasonable weather. A writer in *The Canadian Shoe and Leather Journal* is of the opinion that no price list should be issued before April 1 at least, since the rubber season in the Dominion is not entirely over before that date and sorting up orders would thus be placed upon a more satisfactory footing. Mention is made of a large city dealer who, a year or two ago, by March 1 was pretty well cleaned out of rubber footwear, and was obliged to sort up. This came just as the new price list was issued, and he was obliged to pay 5 to 7 per cent. more for his goods, although he could not get a cent more from the consumer for them. A subscriber to the *Journal* writes to that paper suggesting that the retailers have grievances which demand attention, and his idea is that the trade subscribe to a fund to enable the government to conduct an inquiry throughout the Dominion in regard to the whole rubber footwear business.

RUBBER FOOTWEAR IN BRITISH COLUMBIA.

CONSUL GENERAL GEORGE N. WEST, of Vancouver, writes that the miners of British Columbia do not use rubber boots and shoes, preferring a leather shoe with a 12-inch leg, retailing at \$8 per pair. Some American rubber boots, at \$12 per pair, are on the market. There are large numbers of lumber men, and, as there is a great deal of wet weather, they use rubber footwear extensively, while the population generally are large users of lighter weight rubber goods.—*Daily Consular and Trade Reports*.

FREE IMPORTS OF COTTON DUCK.

IN the Canadian customs returns for the last fiscal year the "free list" includes this item of imports: "Cotton or linen duck, seamless, in circular form, of a class or kind not made in Canada, for use in the manufacture of hose pipe." The imports under this head were \$66,568 from the United States and \$7,875 from Great Britain—total \$74,443.

This heading supplants "Duck for belting and hose, imported by manufacturers of such articles for use in the manufacture thereof in their own factories." The imports under the old heading for the fiscal year 1905-06 reached \$118,169 from the United States and \$168 from Great Britain—total \$118,337.

* * *

THE Canadian General Electric Co., Limited (Toronto), have declared the regular quarterly dividend of 1¼ per cent. for the three months ended December 31, 1908, being at the rate of 7 per cent. per year.

SOME BRITISH RUBBER NOTES.

IN addition to playing and other balls, made under the Cox patent, which have been a specialty among the products of New Eccles Rubber Works, Limited, of Eccles, Lancashire, from the beginning, that company are now extensive makers of rubber tires, the patents on the principal types having expired, and inner tubes for tires. Other specialties are walking sticks and umbrella handles of hard rubber—smart in appearance, especially when mounted with gold or silver—and dolls and toys in great variety.

The firms interested in the British automobile trade have by no means been uniformly successful of late. Whereas the accounts of A. Darracq & Co. (1905), Limited, show a net profit for the year ending September 30 of £165,505, and the dividends for the year were the same as last—20 per cent.—The Daimler Motor Co. (1904), Limited, present a profit and loss account, showing a net loss of £49,285 17s. 11d.

THE RUBBER TRADE AT AKRON.

BY A RESIDENT CORRESPONDENT.

AT a recent meeting of the Akron Chamber of Commerce, representatives of rubber companies said that employment would be given to 1,500 additional men in this city within the next two months, on account of the completion of additions to a number of local rubber factories. Under these conditions, manufacturers are concerned about the lack of housing facilities in the city. Immediate efforts will be made by a special committee of the Chamber of Commerce to provide for an increase of 10,000 in the population of the city within the next three years. Rubber manufacturers are already facing what has been termed a small "labor famine" on account of the difficulty in securing men and girls and men sufficiently skilled and properly adapted to take positions in the various departments of the rubber factories. The need is especially for girls. Large display advertisements are being run in daily newspapers, asking for female workers for rubber factory work.

Frank Talbott, assistant treasurer and auditor of the Firestone Tire and Rubber Co., has resigned his position and with G. C. Calbetzor, now general representative of the same company on the Pacific coast, will establish a partnership to handle the agency of the Firestone company in Los Angeles. The agency will be opened in January and will be conducted under the name of the Firestone Tire and Rubber Co. Mr. Talbott's successor has not been determined.

Mr. F. O. Sawyer, No. 3910 Olive street, St. Louis, one of the veterans in the rubber tire trade, has disposed of his business to the Firestone Tire and Rubber Co., who are converting the business into a branch which will be their distributing headquarters for the states of Missouri, Oklahoma, Arkansas, Kansas, and Texas. J. P. Trader will have charge of the branch.

The Miller Rubber Co. have completed a new three story factory building, 100 x 40 feet. It has been put into use to enlarge the company's output in druggists' sundries and molded goods.

A fire in the cement department of the Goodyear Tire and Rubber Co.'s factory on December 8, caused damages amounting to about \$2,000. The blaze was supposed to have been caused by the accumulation of naphtha fumes. In an instant after ignition, the flames filled the room, but fortunately the department is located in a concrete block building which prevented the spread of the fire. Workmen controlled the flames by using the factory fire-fighting apparatus. As a result of the work of a new automobile fire truck in the city department F. A. Seiberling, president of the company, highly commended this type of fire fighting vehicle.

The force at the new plant of the Buckeye Rubber Co. is being gradually increased to prepare for the expected demand for the new Kelly-Springfield pneumatic tire which has been recently placed on the market in limited numbers. The tire is being manufactured in the round, Bailey and flat tread types. H. G. Hodge, Akron manager of the Consolidated Rubber Tire Co., who market the Kelly-Springfield tire, said that when the new factory is operated at full capacity, 200 sets of pneumatics will be produced daily.

All of the large Akron tire companies will be represented on the floors of the big automobile shows at New York. The exhibits will generally be in charge of the New York branch managers of the various companies. They will be represented also at the Chicago show by the local managers there.

The Goodyear Tire and Rubber Co. are gratified over the result of Oliver P. Fritchle's run in an electric of his own make from Denver to New York, where he arrived after 30 days' travel, in which he averaged 100 miles a day over all roads. His electric was equipped with Goodyear long distance "Electric" tires, a type which is designed to consume as little current as possible. Mr. Fritchle arrived in New York with Denver air in three of the tires, but the fourth was punctured in Chicago.

The Goodyear Tire and Rubber Co. have established a branch

in Atlanta, Georgia. O. L. Weaver, formerly in their branch in Cincinnati, is in charge.

The Empire Manufacturing Co. are putting on the market several new lines of goods, such as inner tube casing patches and other automobile accessories. The company have been organized, with C. W. Wickline as president, Forest Firestone, secretary, and M. G. Snyder, treasurer. The capitalization is \$10,000.

An extension of the South Akron reclaiming plant of The Diamond Rubber Co. is under construction. The old three story factory building is being increased in length from 100 to 190 feet. This will mean about a 60 per cent. increase in floor space. A piece of land 13 acres in extent has been purchased by the company near this plant for possible future extensions.

The Motz Clincher Tire and Rubber Co. recently sold the balance of their treasury stock to the amount of \$15,000, out of a total capitalization of \$50,000. An official of the company stated that the money thus realized will be used to extend the vehicle and motor truck tire business of the company. Their product is now made by the Buckeye Rubber Co., and the project of constructing a plant of their own is under consideration. New York and Chicago branches will be established after the automobile shows, with P. E. Bertsch in charge at New York.

Claude Moody, representative of the Pennsylvania Rubber Co. in Chicago, was in Akron lately for a conference with Isaac C. Alden, general manager of the Pennsylvania company. Mr. Moody has the supervision of the company's business from Detroit to Salt Lake City. He was recently transferred from Cleveland.

Mr. James A. Braden, advertising manager of The Diamond Rubber Co., who writes juvenile stories as a pastime, is the author of "The Auto Boys," just placed on the market from the press of the Saalfeld Publishing Co.

The Aluminum Flake Co. (Akron, Ohio), report having closed the best year's business they have ever had. Already they have requisitions and contracts calling for over 1,750,000 pounds in 1909. They have exported their product to England, Germany, Russia and Australia, and their foreign business is steadily growing. A contract has been closed with a firm in Berlin to act as agents abroad, which calls for a minimum of 750,000 pounds annually for five years. The company have produced a beautiful aluminum oxide, which they hope to supply in quantities in the near future.

THE RUBBER TRADE IN SAN FRANCISCO.

BY A RESIDENT CORRESPONDENT.

THE rubber trade is holding its own in the commercial life of San Francisco, and, on the whole, the report from the rubber houses show a better feeling in the business than existed last month. Druggists' sundries have been moving very satisfactorily, although probably not up to the standard of former years, while the mechanical line is still rather quiet, and while about the same as at this time last year, and while it is not expected to do much in that line during the winter months, yet the mechanical business cannot be said to be quite up to normal. The outlook for the spring months continues to improve, however, and during the past month there have been heavy rains which practically insure another season of good crops, which will have great weight in stirring up a big spring activity, and which has already caused a marked improvement in the departments for rubber clothing and shoes.

The diagonal cross-expansion piston packing made by the Bowers Rubber Works, of San Francisco, which packing is referred to as "Dods" in the firm's advertisement in THE INDIA RUBBER WORLD, will hereafter be designated and known as "Skookum" piston packing. The change was made principally on account of the trademark laws of this and other countries. The word "Skookum," as Mr. Chase, manager of the company,

explains, is from the language of the Siwash Indian tribe, and is the equivalent of the English word "bully," or "extra fine," and is a word which is coming generally into use as an English expression. The Bowers company procured a contract last week for 12,000 feet of fire hose for Los Angeles, California, which makes orders for about 58,000 feet of fire hose taken recently, so that they feel that conditions are pretty good in that line, at least.

Mr. William Gorham, of the Gorham Rubber Co., is building for himself a 44-foot, 50 HP. launch, which, when it is completed, he intends to take down to Los Angeles for use when he is at the southern ports, and he is also going to build a mate to it for use here around San Francisco, in connection with his other launches, and still he says that business is "rotten." Mr. Gorham is in Los Angeles now looking after the business of the branch store there, and at Headquarters in San Francisco the report is that business has kept up fairly well. This firm reports that shipping business is getting active again, as all of the steam schooners are coming back to work, and orders are very frequent from the shippers.

Mr. Griffin, superintendent and manager of the American Rubber Manufacturing Co., whose offices and factory are over at Emeryville, across the bay, reports that business is going ahead with them in a very satisfactory manner. This firm secured the order for all of the 3-inch and a portion of the 2½-inch hose for the San Francisco fire department.

The first and most important of the new system of salt water pumps which are to be constructed for San Francisco to be used in case the water supply system is again incapacitated on account of earthquake, is now being dug at Market and Battery streets, in the midst of the wholesale district.

The Gutta Percha and Rubber Manufacturing Co. report that conditions are naturally quiet now, but are showing improvement all the time. Merchants are looking forward now hopefully and with certainty that conditions will be good in the spring. Not much can be expected before that time in the mechanical line, as the winter rains will make the roads to the mines and lumber camps so bad that practically no goods will be taken in before April.

Mr. Mortimer Smith, of Boston, has been in San Francisco for the past 30 days on a pleasure trip. He is the son of the president of the Boston Woven Hose and Rubber Co., Mr. Joseph N. Smith, of Lynn, Massachusetts.

Mr. Joseph V. Selby, Pacific Coast agent for the Boston Woven Hose and Rubber Co., states that the prospects for the spring business are quite bright, although the business during the past 90 days has been unusually quiet. And yet, he said, with the bountiful rains which we have had all over this coast, and the improved feeling which exists in all mercantile pursuits, everything points to a prosperous business for the coming spring and summer.

Mr. Kanzee, of the Phoenix Rubber Co., states that the factory is running full force and that everything is getting firmly established in their new four-story and basement quarters, in First street. He reports that business is very good in all departments. The firm's new sanitary toilet seat has proved to be a big seller.

Mr. Perkins, of the Sterling Rubber Co., on Second street, states that the druggists' sundry lines continue active, although there is little work for the mechanical lines. Retailers are letting their stock go now, and will not begin to buy until they have taken stock after the holidays, and as only about one lumber mill out of 20 is running, and as that one is using up all of the old belting of the other 19, there is almost no demand from the mills, although just as soon as they all start up again, and he hopes it will be next spring, there will be nothing on hand at all, and business will be rushing.

The Gladiator Rubber and Packing Co. has been incorporated, to carry on the rubber business in San Francisco.

Maurice Gibson, manager of the Fisk Rubber Co., on Golden

Gate avenue, states that business in the rubber tire line is exceedingly good. All of the tire men are agreed that automobiles are being driven more numerous this winter than ever before during the winter season, which has caused an increase in the rubber tire business all around.

ANALYSIS OF A HOT WATER BOTTLE.

A WELL-KNOWN rubber superintendent who has been visiting rubber mills (not in the United States by the way) sends the following description of work done in a rubber factory, but does not give the location, which, perhaps, is just as well.

Rubber manufacturing calls for varied talents, but it has not been apparent until recently that surgery is included. The following is a description of what has to be done in the manufacture of water bottles:

Cutting	1 woman	½ hour.	(revolting).
Making	1 woman	1 hour.	(a miracle).
Carrying down and bringing back	1 woman	¼ hour.	(hard labor).
Examining	1 woman	7 minutes.	(interesting).
Dispatching	1 girl	17 minutes	(murder).
Cure		17 minutes.	(quick work).

The manager of this branch of work, our correspondent says, has missed his vocation. He should be in charge of a hospital or a harem.

ARTISTS IN GUTTA-PERCHA.

IT may not be generally known, but the Dyak head hunter of Borneo is not only a picturesque warrior, but quite a sculptor, or more exactly, a modeller. With the various shipments of gutta-percha that come into Singapore are figures of animals made of gutta, some of them showing considerable artistic ability.

The Curiosity Corner of THE INDIA RUBBER WORLD office has several of these figures—tigers, sacred cows, monkeys, and beasts



A SACRED COW, WORKED IN GUTTA-PERCHA.

of that sort. It is said that each of these figures is the trade mark of a family or clan, and that the Chinese traders by these tokens know exactly with whom they are trading. This may be fact or it may be fiction. At all events, the figures are interesting and rare.

THE sales of a certain Fulton street (New York) rubber store, which formerly carried a line of rubber clothing and footwear in the early 80's when Fulton Ferry afforded practically the only transit facility between that section of New York and Brooklyn, amounted, in stormy weather, to \$500 a day. Since the provision of so many other avenues between the two cities, the footwear and clothing departments have been abolished as unprofitable, and the concern at present does a small jobbing and retailing business in mechanical and molded goods.

At the annual automobile show at Olympia, London, during the past month, of the 2,218 cars exhibited 678—or over 30 per cent.—were equipped with "Continental" tires.

News of the American Rubber Trade.

NEW INCORPORATIONS.

CONVERSE Rubber Shoe Co., October 29, 1908, under the laws of Massachusetts; capital, \$250,000. Incorporators: Marquis M. Converse, Joseph S. Capen, and Henry Endicott, Jr. Mr. Converse is president and Mr. Capen treasurer, and Hugh Bullock will be factory superintendent. These, with R. M. Saltonstall, member of a prominent Boston law firm, and Henry Dutton, of Houghton & Dutton, proprietors of a Boston department store, constitute the board of directors. The purpose is to establish near Boston a factory for an extra quality of boots and shoes, to be sold direct to retailers. The selling department will include Harry W. Marden, B. J. Berns, J. E. Folan, W. H. Patrick, and F. E. Harriman, all of whom have been associated with Mr. Converse and are well known in the New England footwear trade. Mr. Converse was at the head of Converse & Pike, in the footwear trade, who in 1890 removed their business from Lebanon, New Hampshire, to Boston, where it grew to large proportions. He resigned in time on account of his health, and the business took the name Tremont Rubber Co., which is still retained. In 1903 Mr. Converse became connected with the Boston house of The Beacon Falls Rubber Shoe Co., incorporated in the following year as The Beacon Falls Rubber Shoe Co. of Boston, which since has been under his management, with the assistance of the Mr. Capen named above.

Converse Rubber Co., October 22, 1908, under the laws of Massachusetts; capital, \$5,000. The incorporators are Colonel Harry E. Converse, president; Harry P. Ballard, secretary and treasurer, and John Robson. These gentlemen are all connected with the Boston Rubber Shoe Co. (Malden, Mass.), with which the name Converse so long has been associated, and the new company doubtless has been formed, as a subsidiary concern, for securing as far as possible rights to the use of the name Converse. It is understood that a line of goods bearing the name of the new corporation is being made.

The Okonite Co., December 11, 1908, under the laws of New Jersey; capital, \$500,000. Incorporators: Willard L. Candee and H. Durant Cheever, No. 253 Broadway, New York; Frank Cazenove Jones, No. 103 Park avenue, New York; John D. Cheever, No. 40 East Thirty-fifth street, New York; and William F. Gaston, Passaic, N. J. Originally the Okonite insulation interest was controlled in America alone. In June or July, 1890, the business was organized on a wider basis, under the English laws, as the International Okonite Co., Limited, with £340,000 capital authorized, to control factories at Passaic, N. J., and Manchester, England. In February, 1901, this company was succeeded by the Okonite Co., Limited, also English. The evident purpose of the reincorporation in New Jersey is to remove the domicile of the company again to the United States.

Cable Pneumatic Tire Co., December 17, 1908, under the laws of New Jersey; capital authorized, \$500,000. Incorporators: John F. Scannell, No. 729 Sixth avenue, New York; Frank A. Magowan, No. 241 Broadway, New York; and Grant Lambright, Newark, N. J. Object, to establish a factory for tires and other automobile accessories of rubber.

Rubber Substitute Co., December 9, 1908, under the laws of New Jersey; capital, \$10,000. Incorporators: Robert Ferrier, Thomas R. Armstrong, and Thomas H. Ross—all of No. 1 Exchange place, Jersey City, N. J. To make and deal in rubber compounds, substitutes, and the like.

Crude Rubber Regenerating Co., December 4, 1908, under the laws of New Jersey; capital authorized, \$50,000. Incorporators: Charles I. Taylor, No. 200 South Clinton street, East Orange, N. J.; Frank H. Parcells, Brooklyn Hills, Long Island; and Thomas H. Beardsley, No. 54 Wall street, New York.

Atlas Rubber Co., November 21, 1908, under the laws of New York; capital, \$50,000. Incorporators: A. G. Bartholomew, Morley C. Bartholomew, and George D. Crafts, all of Buffalo, N. Y.

Mansfield Rubber Co., November 25, 1908, under the laws of Ohio; capital authorized, \$250,000. Incorporators: C. Hautzermoeder and L. Hautzermoeder, Herbert Hornberger, F. M. Bushnell and W. H. Taylor. The new company have organized by the election of Frank A. Wilcox, president; Charles H. Walters, vice president; F. M. Bushnell, treasurer; F. W. Walters, secretary. The equipment of a factory is now under way, with the purpose of making a specialty at first of motor tires and the gradual addition of a line of mechanical goods. Location, Mansfield, Ohio.

Lynn Rubber Co.—A certificate filed in the office of the secretary of state of Massachusetts November 25, 1908, changed to this name the Lowell Rubber Co., incorporated January 20, 1896, removing its principal office from Lowell to Lynn, Mass. The authorized capital is \$5,000. The opening of the Lynn Rubber Co.'s new store was reported in THE INDIA RUBBER WORLD December 1, 1908 (page 114).

Wisconsin Auto and Tire Repair Co., November 27, 1908, under the laws of Wisconsin; capital \$10,000. Incorporators: John J. Rohde, Albert R. Hulick and David D. Smith—addresses not stated.

SALE OF A RUBBER FACTORY.

THE factory building and machinery of the Grand Rapids Felt Boot Co. (Grand Rapids, Michigan), was disposed of at public auction by the receivers, the Michigan Trust Co., on December 16, to Goodspeed Brothers, of Grand Rapids, for \$52,500. The Grand Rapids Felt Boot Co., engaged in the manufacture of felt boots, took on in 1900 the production of rubber overs, with a view to the sale of "combinations." The appointment of a receiver was reported in THE INDIA RUBBER WORLD October 1, 1907 (page 27).

TRADE NEWS NOTES.

It is understood that the Boston Woven Hose and Rubber Co., notwithstanding the falling off in the general rubber business last year, enjoyed a volume of sales within 7 per cent. of the largest year in the history of the company. Within the past two months the normal volume of business has been attained, and even exceeded.

Mr. Herbert A. Githens, after a successful career as general traveling representative of the G & J Tire Co., has been appointed manager of that company.

The Indianapolis Rubber Co. (Indianapolis, Indiana) have filed a permit for the erection of an additional factory building of three stories, and to cost \$25,000.

Among the attractive advertising novelties distributed in the rubber footwear trade of late special mention may be made of a series of show cards on which "Champion Tennis Shoes" are strikingly pictured in "natural" color against a deep red background. Another is an office blotting card on one side of which is pictured, in green, a rubber tree leaf, across which is lettered "American rubbers."

Coupons on the 6 per cent. purchase money bonds of the Tehuantepec Rubber Culture Co. (New York) were payable on and after December 1 at the offices of the Knickerbocker Trust Co.

Mr. A. R. Duryee, after having been connected with Asbest- und Gummiwerke, Alfred Calmon, A.-G., at Hamburg, has retired therefrom and was heard from lately traveling in the British isles.

WILLIAM J. B. STOKES.

The illustration on this page is a portrait of Mr. William J. B. Stokes, president of the Home Rubber Co., vice president of the Joseph Stokes Rubber Co., and treasurer of the Trenton Rubber Manufacturing Co., all of Trenton, New Jersey. He is also treasurer of the City of Trenton (which office he has held for the past 14 years), president of the Masonic Hall Association, and warden of the States Street Methodist Church, at Trenton. Mr. Stokes reflects in his career many of the qualities possessed by his father, who early in life transferred his home from England to America, where he became identified with the iron and steel industry, winning material success and a world-wide reputation as an expert.

The subject of this sketch was born at Pottsville, Pennsylvania, in August, 1857. While a very young man, he started in the coal and lumber business, and later, with his brothers, became interested in the manufacture of rubber. His marked mechanical tastes, a strong individuality and keen business judgment have all contributed to the success of the business with which he is connected. Mr. Stokes is of a genial, frank disposition, making friends readily and keeping them. He takes a keen interest in politics and in the advancement of every good interest in his home city. He is a member of several clubs; identified with many of the foremost charities of Trenton, and an enthusiastic sportsman. He owns a palatial Colonial home on the banks of the Delaware river, his city home in the winter, and a beautiful summer home on the ocean front at Belmar, New Jersey.

THE REPUBLIC RUBBER CO. EXTENSIONS.

RECENT additions to the plant of The Republic Rubber Co. (Youngstown, Ohio) include a new tire building of concrete construction, 65 x 285 feet; also an addition to their calender room 33 x 80 feet, for additional calenders and mills, and an addition to the power room for new engines and boilers. The new additions—all as nearly fireproof as possible—will make possible a largely increased output of goods and the employment of a considerably larger force.

The Republic Rubber Co. of New York—a subsidiary of the above—have recently leased premises at No. 229 West Fifty-eighth street, which will be remodeled for their purposes. In taking over this new store the intention of the company is to consolidate their mechanical goods business in New York with their tire business, as some of the other large manufacturers have been doing.

The success of the Republic company in securing awards from the city of New York for fire hose has been one of the notable recent rubber news items.

TARDY APPROACH OF "RUBBER" WEATHER.

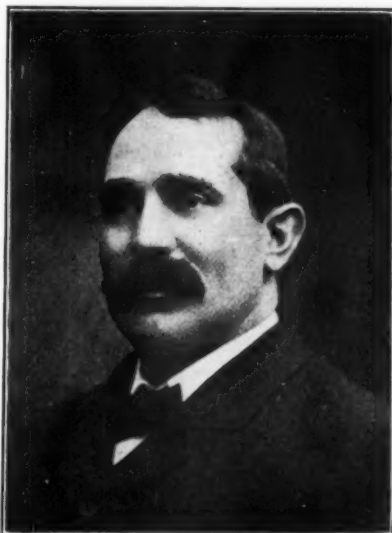
THE first snow and ice bulletin of the season issued by the United States weather bureau was dated December 8, and at first glance it appeared most satisfactory to the rubber footwear trade, as the area covered by the tints indicating snow was exceptionally large. Snow was indicated in 26 states and territories of the 48 composing the Union, but a study of the figures shows that in most cases only traces of snow existed. The greatest depth was 10 inches at Sault Ste. Marie, Michigan, and as high as 5 inches was reported at some points in Iowa. For the most part, however, the amount of snow was not such as to encourage the rubber trade, and more recently the situation has

not been more encouraging. It will be remembered, however, that in recent years it has not been unusual for New Year's to arrive without any general heavy snowfalls, though later in the winter the weather may have been such as to greatly stimulate the demand for rubbers.

The year 1908 ended with general inactivity among the rubber footwear factories. Early in December the following notice was posted at the Millville mill of the Woonsocket Rubber Co.:

Owing to the unfavorable weather conditions we find it necessary to make a temporary cut-down at this mill, the last day's making will be on Saturday, the 13th instant. The first day's making in starting up will be on Jan. 4, 1909.

It was understood that if favorable weather should occur meanwhile the mill might start earlier. No notice was posted at the Woonsocket company's "Alice" mill. The factories of the United States Rubber Co. at Naugatuck and New Haven ran during the latter part of the month on a reduced schedule. More favorable conditions are reported from Canada. On December 12, after 30 hours of continuous snowfall over most of the province of Quebec, it was reported that 14 inches had fallen in Montreal, which was an unusual amount for that time of the year.



WILLIAM J. B. STOKES.

NEW GOODYEAR BRANCH IN BOSTON.

OWING to the steady increase of their New England business The Goodyear Tire and Rubber Co. (Akron, Ohio) have closed a 20 year lease on the building located at No. 669 Boylston street, Boston. The present building is to be replaced with an up-to-date five story structure 90 x 24 feet, of which the main floor is to be used as a salesroom and the basement for applying solid motor truck tires and general workshop purposes. The upper floors will be equipped with a complete repair shop. The new building will be in readiness about May 1 next, after which Manager William T. Teagan will be able to carry a larger stock of goods for the accommodation of the company's New England customers.

"FEDERAL" TIRES IN BOSTON.

THE Standard Tire and Rubber Co. (Boston) have opened an uptown branch to take care of the new "Federal" automobile tire handled by that company.

This tire is made by the Federal Rubber Co. (Milwaukee, Wisconsin.)

RECEIVER FOR THE LAKE SHORE RUBBER CO.

THE Lake Shore Rubber Co. (Erie, Pennsylvania), established some 20 years ago and incorporated in 1893, has gone into the hands of a receiver, Judge Walling having appointed Henry E. Fish to this position. The plant is being operated for the present by the receiver, and the hope is entertained that the business may be reorganized on a stronger basis and continued under the present name.

* * *

Later.—The receiver has announced public sale of all the property of the Lake Shore company, including real estate, buildings, machinery, raw materials, and manufactured products, to take place at Erie, on January 7.

J. SCHNURMANN, NEW YORK.

THE New York business of J. Schnurmann (London) in scrap rubber was started in June, 1907, in the offices of Felix Salomon & Co., No. 140 Nassau street, where Mr. H. Weber had charge of the rubber department. Owing to the continued increase of the business the Schnurmann house has opened its own offices, at No. 150 Nassau street, New York, with Mr. Weber as manager.

UNITED STATES RUBBER CO. FINANCES.

A SPECIAL meeting of the stockholders of the United States Rubber Co. was called to be held at the principal office of the company, at New Brunswick, N. J., on December 29, to take action upon the following resolutions, proposed by the board of directors, and of which the shareholders had notice in a circular issued December 1:

"Resolved, That assent be and is hereby given to the pledge by this company of all or any shares of the capital stock of all or any corporations now owned or hereafter acquired by it, as security for a proposed issue of \$20,000,000 of ten year 6 per cent. collateral sinking fund gold bonds of this company.

"Resolved, That the board of directors be and they are hereby authorized from time to time to take appropriate action with reference to the issue and sale of not exceeding \$20,000,000 of ten year 6 per cent. collateral trust sinking fund gold bonds of this company, to be secured by the pledge of shares of stock of subsidiary companies of this company under an indenture to be executed and delivered to the Central Trust Co. of New York, or such other trust company as shall be designated by the board of directors as trustee.

"Resolved, That the form of collateral indenture securing said ten year 6 per cent. collateral trust sinking fund gold bonds, to be presented at said meeting, be in all respects approved and the execution and delivery of said collateral indenture be authorized."

The proposition of the directors looked to the sale of \$15,000,000 of these bonds for the purpose of funding \$8,000,000 United States Rubber Co., maturing September 15, 1909, and \$4,500,000 Boston Rubber Shoe Co., maturing September 15, 1910, both issues being redeemable March 15, 1909, and to provide for the present floating indebtedness of the company. The circular stated: "A sale is to be made to a syndicate (in which some of your directors will participate), upon terms which are deemed more favorable to the company than those of any former refunding, and which will be reported at the stockholders' special meeting." It is further stated:

"On March 31, 1902, the total amount of outstanding funding notes and Boston Rubber Shoe Co. debentures was \$16,800,000; on March 31, 1908, by payments out of earnings this had been reduced to \$12,800,000. At the same time the book surplus had been increased by the sum of \$6,142,802.83. For the year ending March 31, 1902, sales were \$21,196,429.81; for the year ending March 31, 1908, \$41,860,425.96. These figures do not include the transactions of the Rubber Goods Manufacturing Co."

The shareholders, at the special meeting, gave their assent to the proposal of the directors.

UNITED STATES RUBBER CO.'S SHARES.

TRANSACTIONS on the New York Stock Exchange for four weeks, ending December 19:

COMMON STOCK.

Week November 28	Sales 3,635 shares	High 36 $\frac{1}{8}$	Low 35
Week December 5	Sales 3,330 shares	High 36	Low 34 $\frac{1}{2}$
Week December 12	Sales 2,100 shares	High 34 $\frac{3}{4}$	Low 34
Week December 19	Sales 2,400 shares	High 34 $\frac{1}{4}$	Low 32 $\frac{7}{8}$
For the year—High, 37 $\frac{1}{2}$, Aug. 7; Low, 17 $\frac{1}{2}$, Feb. 26.			
Last year—High, 52 $\frac{1}{4}$; Low, 13 $\frac{1}{2}$.			

FIRST PREFERRED STOCK.

Week November 28	Sales 4,500 shares	High 107	Low 105½
Week December 5	Sales 3,175 shares	High 108	Low 106½
Week December 12	Sales 2,050 shares	High 108	Low 107
Week December 19	Sales 1,560 shares	High 108	Low 105
For the year—High, 108, Dec. 2; Low, 76, Feb. 19.			
Last year—High, 109½; Low, 61¼.			

SECOND PREFERRED STOCK.

Week November 28	Sales 1,250 shares	High 75½	Low 74
Week December 5	Sales 500 shares	High 75½	Low 74
Week December 12	Sales 605 shares	High 75	Low 74½
Week December 19	Sales 600 shares	High 75	Low 72
For the year—High, 75½, Nov. 27; Low, 42, Feb. 21.			
Last year—High, 78½; Low, 39.			

POPE MANUFACTURING CO. REORGANIZED.

INCORPORATION papers were filed under the laws of Connecticut on December 12 for a new Pope Manufacturing Co., being a reorganization of the New Jersey company by the same name which has been in receivers' hands since August 14, 1907. The capital stated is \$6,500,000—\$2,500,000 preferred and \$4,000,000 common, all at \$100 per share. The incorporators were Albert L. Pope, Colonel George Pope, Charles E. Walker, and Wilbur C. Walker—respectively vice president, treasurer, second vice president, and secretary of the company in liquidation. The directors chosen are Harry Bonner, Frederick H. Ecker, August Heckscher, Louis E. Freedman, Albert Stickney, A. W. Pope, Henry B. Poor, A. L. Pope, and Milton Ferguson. It will be seen that Colonel Albert A. Pope is not included on the board.

The original Pope Manufacturing Co. was organized by Colonel Pope in the early days of the bicycle industry and achieved great success. The company was included in the \$40,000,000 American Bicycle Co. formed in 1899 and when this company went into liquidation what remained of the assets was taken over by Colonel Pope, who organized a new Pope Manufacturing Co. in 1903, with an authorized capital of \$22,500,000. The purpose was to revive the bicycle industry if possible, and to engage largely in the manufacture of automobiles. This company made a voluntary assignment in 1907, since which time some of the numerous factories controlled by it have been disposed of and others have been operated at a profit by the receivers. The creditors have been paid in full, with interest at 6 per cent.

A GOODLY SUPPLY OF RUBBER.

It has often been jokingly suggested that all rubber manufacturers did not use rubber. Indeed tradition has it that at one time the ubiquitous Magowan, in order to prove to a customer that he really knew what Pará rubber was, opened his safe and produced the factory's stock for temporary inspection. That



"A GOODLY SUPPLY OF RUBBER."

all manufacturers to-day do use rubber and the best, however, goes without saying, else why should rubber be so high? Right in line with this thought, the prettiest factory stock we have seen of Pará rubber in a manufacturer's storehouse is shown in the accompanying reproduction of a photograph taken at the storehouse of the Hood Rubber Co., East Watertown, Massachusetts.

CHEAPER RATES FROM THE WEST.

THE Merchants' Association of New York have received advices that the Rock Island-Frisco system has authorized merchants' rates to New York for the spring of 1909, from all points reached by its line, the special rate being 1 $\frac{1}{2}$ fares for the round trip. It will be in effect on different dates from January 16 to the end of February, with a 30-day return limit. This new movement places merchants in the far West and Southwest on an equality with those in nearby centers, who have enjoyed reduced rates for a number of years.

RUBBER GOODS DIVIDEND.

THE thirty-second regular quarterly dividend of $1\frac{3}{4}$ per cent. on the preferred shares of the Rubber Goods Manufacturing Co. was payable on December 15. The last preceding dividend was payable October 29.

CONSOLIDATIONS IN THE FOOTWEAR TRADE.

THE recent purchase by Hamilton-Brown Shoe Co. (St. Louis) of the old established firm of Batchelder & Lincoln Co. (Boston), unites the two largest shoe markets in the world. The interest to the rubber trade lies in the fact that these two houses had become such important distributors of rubber footwear. The shipments of the St. Louis house alone have amounted lately to about \$12,000,000 a year of goods of all kinds. The Boston business took its name from E. B. Batchelder, who died in 1878, and Joseph B. Lincoln, who lived until 1895, after which the business became a corporation. The manager of what now has become the Boston house of Hamilton-Brown Shoe Co., at Nos. 604-610 Atlantic avenue, is Mr. H. D. Peyton, who has been connected with them for some time in the West. In New York the business of Batchelder & Lincoln Co. is at No. 146 Duane street, has been taken over by Nathaniel Fisher & Co., whose place was next door, and the combined premises give them a frontage of 85 feet, seven stories high, thus doubling their capacity for business. Hamilton-Brown Shoe Co. are featuring, in the way of rubber footwear, the Lycoming and Boston lines.

Another important consolidation in the footwear trade is that by which Edwards-Stanwood Shoe Co., of Chicago, becomes absorbed by Smith-Wallace Shoe Co., of the same city, the combined business to be continued under the latter name. The Smith-Wallace Shoe Co. have arranged to double their former capital, in view of the new arrangement. Both the firms named have been long established, and in the consolidated form the business becomes one of the largest in footwear in the world. They may be expected to continue to be large distributors of rubber boots and shoes.

CALENDARS FOR 1909.

THE first calendar for the New Year to reach THE INDIA RUBBER WORLD offices from the trade is an artistic production, of an original character, got out by the Revere Rubber Co. (Boston). There is a separate large leaf for each month in the year, each differing from the other, and all appropriate to the trade to which this company belongs.

The Rubber Products Co. (Barberton, Ohio), mount their calendar on a card $14\frac{1}{2} \times 23\frac{1}{2}$ inches. It carries a reproduction of "Grace," from a painting by J. A. Lange—the interpretation of a type of feminine loveliness that has made the artist famous.

The calendar of J. H. Stedman & Co., Inc. (Boston) is embellished with a large and handsome photogravure, "The Mill in the Forest."

Consumers' Rubber Co., (Bristol, Rhode Island), send out with their compliments a tastefully got up calendar on which is displayed an American eagle above the "Stars and Stripes," in colors.

New Jersey Rubber Co. (Lambertville, N. J.), again have distributed to their friends in the trade a "Handy" memorandum desk calendar, with a separate leaf for each day in the year, which cannot fail to be appreciated by those who receive it.

TRADE NEWS NOTES.

THE co-partners in the firm of Philip Broomfield & Co., rubber scrap dealers, of Boston, have petitioned the Superior Court for the appointment of a receiver, and the court has appointed Clarence C. Colby to that position. The proceedings, it is understood, have been instituted as a step in bringing about a dissolution of partnership.

Brockton Rubber Heel Co. (Brockton, Mass.) is the name of a new concern, of which the proprietors are Wallace C. Flagg and C. Gust Nelson. They are in a position to accept business from parties who want a special heel or trade work.

PERSONAL MENTION.

MR. HERBERT L. SATTERLEE, who lately accepted the position of assistant secretary of the navy, at Washington, is president of the Habirshaw Wire Co. (New York).

Mr. Herbert Du Puy, who has been mentioned in the newspapers of late as an extensive purchaser of real estate in New York city and at the same time disposing of Pittsburgh properties, is known to the rubber trade as president of the Pennsylvania Rubber Co. (Jeannette, Pa.).

Mr. Thomas F. Ryan, of New York, reputed until recently to be a director in 34 corporations, has resigned from most of the boards, with a view to his ultimate giving up of business cares. One of the boards from which he retired is that of the Continental Rubber Co. of America. At the last annual meeting of the American Congo Co., Mr. Ryan was elected a director, but declined to accept election. A sketch of Mr. Ryan appeared in THE INDIA RUBBER WORLD, December 1, 1906, (page 72).

At the luncheon given by Baron Schlippenback, the Russian consul general at New York, on December 18, attended by about 150 diplomats, lawyers and business men, to celebrate the Saint's day of Czar Nicholas, Mr. Charles R. Flint was presented, on behalf of the Czar, with a "charka"—a rock crystal goblet set with rubies and diamonds, the same being a token of his Majesty's friendship and appreciation of the work done by Mr. Flint in behalf of Russia during the war between that country and Japan. Mr. Flint was helpful to Russia in the matter of supplying submarine boats, and he and Mrs. Flint were entertained frequently at St. Petersburg. Mr. Flint will be remembered in the rubber trade as the chief organizer of the United States Rubber Co., and the Rubber Goods Manufacturing Co.

Mr. George Louis Richards, so long connected with the Boston Rubber Shoe Co., has been re-elected to the office of mayor of the city of Malden, Massachusetts. He has been connected with the municipal government there since 1890, in which year he was first elected a member of the common council.

Mr. Arthur W. Stedman, of George Alden & Co., sailed from Boston for Europe on December 29.

Mr. Leo. F. Nadeau, of La Nueva Providencia Rubber Co. (Providence, Rhode Island), spent the past month in Guatemala, where the company's plantations are located.

TRADE NEWS NOTES.

GROUND was broken on December 21 for the projected factory of the Converse Rubber Shoe Co., a new company, the incorporation of which is reported in another column. The location is Malden, Massachusetts, on Pearl street, near the Edgeworth station, and the plans call for a three-story concrete building, with steel skeleton and brick trimmings, 170 x 60 feet. The factory is expected to be in operation about March 1.

The factory of the National India Rubber Co. (Bristol, R. I.) was reported recently to be busy in all departments, including lawn tennis goods, insulated wire, druggists' sundries, and the mechanical fabric department. Manager Le Baron C. Colt was quoted as looking for a prosperous winter at the factory.

The rubber footwear manufacturers generally announced a shut down of two days for the Christmas holidays, closing Thursday night until Monday morning.

Theodore Hofeller & Co. (Buffalo, New York), in consequence of the necessity for larger quarters for their scrap rubber trade, has removed to their new offices and warehouses, at Nos. 206-220 Scott street.

Boston Belting Co. send to their friends a New Year's greeting in the shape of a representation of an old candle, flickering down in its socket, emblematical of the old year, together with another candle, to substitute for it, to introduce 1909.

Mr. Harry T. Dunn, president of The Fisk Rubber Co. (Chicopee Falls, Massachusetts), after a visit to the West as far as Kansas City, reports a healthful condition of the tire business in that region, and a great demand for removable rims.

The Proposed Para Rubber Syndicate.

THE rubber importing interests of the United States and Europe have been much concerned of late over reports from Pará of a movement having for its evident object the placing under larger control of Brazilian interests the exportation of rubber. The actual production of rubber on the Amazon and its preparation for market have always been almost solely under Brazilian control. The New York importer, for instance, simply buys the rubber required by his customers at two or three ports in South America, without regard to how it may have reached the primary markets. While nothing definite appears to have resulted as yet, it may be of interest to review the situation as far as developed.

Under laws existent in Brazil since 1903—particularly a decree of the Federal government, No. 979, of January 6, 1903—syndicates may be organized in the agricultural and rural industries "for the defence of their interests," including all the benefits of coöperation, the foundation of credit banks, and the enjoyment of various favors from the government. The benefits of such legislation, it is understood, are to be participated in only by Brazilians.

Recently the legislative assembly of the state of Pará has approved of a proposal to extend definitely the provisions of the decree of 1903, to the rubber interest, the wording of the proposal, introduced into the chamber of deputies by Senhor João Cheves, being as follows:

Be the Governor authorized to concede to Syndicates duly authorized, in accordance with the Federal law No. 979, of January 6, 1903, which are to be founded in this state and recognized by the state government with the exclusive intent to associate for common intent and in benefit of their interests as *aviadores* of the rubber industry, or producers of this commodity, a diminution in the value of export duties on Fine and Medium rubber, exported abroad directly by the mentioned Syndicate on the basis of the following *pauta* table—

Up to 5,246 milreis per kilogram.....	22 per cent.
From 5,250 to 5,500 milreis per kilogram.....	21 per cent.
From 5,501 to 5,800 milreis per kilogram.....	20 per cent.
From 5,801 to 6,100 milreis per kilogram.....	19 per cent.
Over 6,100 milreis per kilogram.....	18 per cent.

This disposition to be immediately executed as soon as the Executive power draw it up. The Executive power to take the necessary provisions that the favors of this disposition shall not be attributed to others but those whom it intends to benefit.

The foreign houses engaged in the export of rubber from Pará have united in a petition to the governor of Pará protesting against his approval of this measure. Furthermore, the various houses in New York, Liverpool, and London, with which these firms are affiliated, have appealed, through their respective home governments, in protest to the Federal government at Rio de Janeiro that the proposed action at Pará is inconsistent with the Federal constitution of Brazil, which guarantees equal rights to all persons in trade, be they Brazilians or citizens or subjects of any other nation. It is pointed out in these protests that the effect of the proposed law would be to give Brazilian exporters of rubber an advantage over foreign houses of at least 4 per cent., whereas the trade to-day is worked upon a basis of $\frac{1}{2}$ to 1 per cent.

The New York signatories to the protest sent through the United States state department are Messrs. New York Commercial Co., General Rubber Co., Poel & Arnold, and A. T. Morse & Co.

The signatories to a communication to the London Chamber of Commerce are Messrs. William Symington & Co., Limited; A. H. Alden & Co., Limited; G. A. Witt, Hecht, Lewis & Kahn; Ed. Schlüter & Co.; and Meyer & Bussweiler, Limited. They ask that the Pará matter be brought to the notice of the British government, with a view to representations to the government at Rio. Besides, Messrs. Heilbut, Symons & Co., of London,

and five other firms in the rubber trade, addressed the London financial house of N. M. Rothschild & Sons, whose reply to the letter concludes: "We can only express the opinion that the Brazilian government is not likely to grant such a concession."

In an interview for THE INDIA RUBBER WORLD, a former consul on the Amazon, now engaged in the commerce in rubber, said, substantially:

"No rubber syndicate such as the proposed law provides for has been formed as yet, so far as known to the trade. Naturally, if formed, it would be composed of *aviadores* (the firms who bring rubber to Pará) and *seringueiros* (the owners of the rubber producing camps). It has been suggested that the proposed syndicate would be backed by the Banco do Brasil, which lately has opened branches at Pará and Manáos, with authority to accept rubber as security for loans, but I do not think so. They probably would lend to such syndicate as to any other merchant. By the way, the advantage to the proposed syndicate would not be alone in the reduced tax on exports—it would enjoy favors from the government in the way of free admission of imports on materials needed for the building of roads, putting on steamers, and otherwise improving their properties for the purpose of extending the trade in rubber."

The interest of foreign exporters is not confined alone to conditions in Pará; they consider the possibility that similar provisions might also be adopted in Amazonas state, of which Manáos is the capital. Besides, there is the great Federal district of the Acre, with a large production of rubber now exported under a duty of 20 per cent., in connection with which the Federal congress lately has considered an amendment to the national budget as follows:

"The president of the republic is authorized to accept for rubber exported from the Acre a sliding scale of duties based upon the price of the product, and in which the present duty may be reduced as low as 14 per cent., in favor of producers who may form a syndicate according to law No. 979, of January 6, 1903."

The protests of American and European houses in the rubber trade apply likewise to the above measure.

ONE RUBBER TAX REDUCED.

A NEW law enacted by the legislative assembly of the state of Pará, which came into force on November 2, is translated thus by *The Brazilian Review*:

ART. 1. During five years, as from January 1, 1909, neither the state nor the municipalities shall be permitted to impose taxes on any of the following: Milho, hulled rice, cotton, and beans.

ART. 2. The municipalities shall not levy a tax on rubber exceeding 150 reis, paper, per kilo. [This equals, at the current rate of exchange, about $\frac{1}{2}$ cents, gold, per pound.]

Sola Par. No further tax, whatsoever its denomination, shall be levied on rubber, or on rubber producers, including the tax at present levied on *estradas de seringa*.

ART. 3. All dispositions to the contrary are hereby revoked.

The state of Pará comprises upwards of 50 districts, corresponding to counties in the United States, though in Brazil they are self governing to a large degree. They are called municipalities and each is governed by an elective mayor (*intendente*). In the past a local export duty has been imposed, the rate varying in the different municipalities, in addition to the general tax imposed by the state. The collection has actually been made at the Pará custom house, the proceeds being remitted to the various local authorities. The tendency of the municipalities has been to increase the local rates on rubber, and it cannot be stated here what the figure has been of late, but the fact that the new law fixes the maximum at $\frac{1}{2}$ cents per pound, and this is regarded as a reduction, would indicate that the local

tax must have become burdensome. THE INDIA RUBBER WORLD May 15, 1894 (page 35) mentioned the local rates as then varying from $\frac{1}{4}$ to $\frac{1}{2}$ cent per pound. It would appear that a tax has been imposed also on rubber producing camps, and this is to be removed.

IMPROVEMENT OF PARA HARBOR.

SOME time ago the following announcement appeared in *The Brazilian Review*, published at Rio de Janeiro:

Mr. Ian Barry, as representative of the Port of Pará Company, lately signed a contract at the state treasury for the cession on the part of the state of the trapiche Recebedoria to be handed over as from August 1. Mr. Barry also signed a contract granting the company the provisional lease of the foreshores lying between the Marine Arsenal and the Souza Franco dock. For the former cession the state received a sum of 200,000 milreis.

The *recebedoria* at Pará is the state tax receiving office, and through its *trapiche* (warehouse) must pass all the exports from the state, of which rubber forms the larger share. The company Port of Pará, Limited, is a corporation under the laws of Maine [see THE INDIA RUBBER WORLD, March 1, 1907—page 192], formed to work a concession granted by the Brazilian government to Percival Farquhar to improve the port of Pará on a large scale, to facilitate shipping at that point. At present vessels are compelled to lie 3 or 4 miles from the port, with the attendant expenses and relays of transfer to and from lighters. Contracts have been entered into for the improvements, with Messrs. S. Pearson & Son, Limited, and other important firms, and work has been begun, but several years will be required for its completion.

The concession provides, among other things, (1) that during

the existence of the concession no vessel can clear at Pará without payment to the company of certain dues established by the concession; and (2) the handling of merchandise for the custom house and warehousing can only be done by the company, at the same fees as now charged by the custom house. The company has an authorized capital of \$17,500,000 and bonds have been issued to provide funds for carrying on the work. Interest on the bonds will be provided from a special tax of 2 per cent. upon all imports into the port of Pará. The prospectus of the company points out the possibility of large earnings, even at the present volume of traffic, while a steady increase in this volume is looked for.

The interest of this to the rubber trade lies in the fact that through the working out of this plan the company will have a "rake off" on every pound of rubber produced in and exported from the state of Pará, and from the paragraph quoted here from the Brazilian paper it will be seen that the collection of fees on rubber is already in effect. Whether or not this will affect definitely the rubber trade in any way remains to be seen, but it may at least be noted that for the first time certain large foreign interests are becoming concerned with the traffic of Pará, out of which ultimately may grow increased outside investments in the commerce of the Amazon and possibly attempts to control the rubber trade on a scale never before essayed.

THE United States consulate at San Juan del Norte (Greytown), Nicaragua, has been discontinued, and the office transferred to Bluefields. Hitherto only a consular agency has been maintained at Bluefields.

Review of the Crude Rubber Market.

THE market at New York has been rather quiet during the month, without changes of note, the year closing with lower quotations on all Pará grades than at the beginning of December. Comparatively few changes are to be noted in our quotations for Africans and Centrals, and such changes are in the nature of declining prices.

The end of the calendar year, with its holidays, as a rule is taken advantage of by the large rubber manufacturing concerns as a period of stock taking and for repairs, in advance of which the buying of raw materials naturally is less active for a while. This reason, no doubt, helps to explain why, in thirteen of the past twenty years, rubber prices have shown a decline at the close of the year, in most cases to be followed by a speedy rise. There is no fixed rule about this, of course, but the fact seems worth mentioning in view of the lower quotations at this moment than in our report a month ago. That is to say, the latest decline need not necessarily be regarded as a certain step to a lower level than has prevailed for the past three or four months. The rubber footwear industry has had a discouraging factor, it is true, in the unseasonable weather thus far, and most of the mills in this branch have had a longer holiday shutdown than in normal years, though the condition is better than at this time last year. In the tire branch, production has been active all season, and good reports come to hand from many important rubber mills in other lines.

Following are the quotations at New York for Pará grades one year ago, one month ago, and December 30, the current date:

PARA.	Jan. 1, '08.	Dec. 1, '08.	Dec. 30.
Islands, fine, new.....	76@77	114@115	113@114
Islands, fine, old.....	none here	none here	none here
Upriver, fine, new.....	82@83	123@124	121@122
Upriver, fine, old.....	84@85	127@128	124@125
Islands, coarse, new.....	50@51	60@ 61	55@ 56
Islands, coarse, old.....	none here	none here	none here
Upriver, coarse, new.....	65@66	92@ 93	92@ 93
Upriver, coarse, old.....	none here	none here	none here
Cametá	none here	63@ 64	61@ 62

Caucho (Peruvian), sheet..	56@57	74@ 75	71@ 72
Caucho (Peruvian), ball..	65@66	90@ 91	83@ 84
Ceylon (Plantation), fine sheet	95@96	129@130	129@130

AFRICAN.

Sierre Leone, 1st quality..	94@95	Lopori ball, prime.....	112@113
Massai, red	94@95	Lopori strip, prime....	86@ 87
Benguella	62@63	Madagascar, pinky....	83@ 84
Accra, flake.....	21@22	Ikelemba	none here
Cameroon ball.....	62@63	Soudan niggers.....	85@ 86

CENTRALS.

Esmeralda, sausage.....	81@82	Mexican, scrap.....	80@81
Guayaquil, strip.....	69@70	Mexican, slab.....	58@60
Nicaragua, scrap.....	81@82	Mangabeira, sheet.....	56@57
Panama	60@61	Guayule	30@33

EAST INDIAN.

Assam	92@93	Borneo	35@45
Late Pará cables quote:		Per Kilo.	
Islands, fine.....	55@56	Upriver, fine.....	65@300
Islands, coarse.....	25@300	Upriver, coarse.....	45@300
Latest Manáos advices:		Exchange	15 7/32d.
Upriver, fine.....	68@800		
Upriver, coarse.....	48@800		

Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for car-load lot, per pound—show a slight decline as compared with last month:

Old rubber boots and shoes—domestic.....	9 1/4@ 9 1/2
Old rubber boots and shoes—foreign.....	9 @ 9 1/2
Pneumatic bicycle tires.....	6 @ 6 1/2
Automobile tires	6 @ 6 1/2
Solid rubber wagon and carriage tires.....	7 @ 8
White trimmed rubber.....	10 1/2@11
Heavy black rubber.....	5 1/4@ 5 1/2
Air brake hose.....	3 3/4@ 4
Garden hose	2 @ 2 1/4
Fire and large hose.....	2 3/4@ 3
Matting	1 1/2@ 1 3/4

Statistics of Para Rubber (Excluding Caucho).

NEW YORK.					
	Fine and Medium.	Coarse.	Total 1908.	Total 1907.	Total 1906.
Stocks, October 31.....	180 tons	41	221	170	125
Arrivals, November.....	1205	594	1799	1331	1556
Aggregating.....	1385	635	2020	1501	1681
Deliveries, November.....	1249	523	1772	1366	1583
Stocks, November 30.....	136	112	248	135	98
PARA. ENGLAND.					
	1908.	1907.	1906.	1908.	1907.
Stocks, October 31.....	520 tons	417	140	265	595
Arrivals, November....	3230	2945	3065	1646	1411
Aggregating.....	3750	3362	3205	1911	2006
Deliveries, November..	3275	3222	2345	1775	1366
Stocks, November 30.	475	140	860	136	640
World's visible supply, November 30.....	11,060	10,615	10,845		
Para receipts, July 1 to November 30.....	1,370	1,075	1,110		
Para receipts of Caucho, same dates.....	700	803	604		
Afloat from Para to United States, Nov. 30.....	654	988	830		

Arrivals of rubber (including caucho) at Para from July 1 to December 21, 1908, amounted to 14,355 tons, against 14,240 tons for the last six months complete in 1907.

Antwerp.

RUBBER ARRIVALS FROM THE CONGO.

DECEMBER 7.—By the steamer <i>Bruxellesville</i> :	
Bunge & Co.....(Société Générale Africaine) kilos	60,200
Do.....	21,000
Do.....(Comptoir Commercial Congolais)	6,500
Do.....(Société Umangi)	600
Do.....(Comité Spécial Katanga)	600

PARA RUBBER VIA EUROPE.

POUNDS.		
Nov. 21.—By the <i>Texas</i> —Havre:		
Poel & Arnold (Caucho).....	22,500	
Nov. 23.—By the <i>Baltic</i> —Liverpool:		
Livesey & Co. (Fine).....	11,500	
Livesey & Co. (Coarse).....	33,500	
Nov. 27.—By the <i>Adriatic</i> —London:		
Poel & Arnold (Coarse).....	33,500	
Nov. 27.—By the <i>Zeeland</i> —Antwerp:		
Livesey & Co. (Fine).....	11,500	
W. L. Gough Co. (Fine).....	7,000	
New York Commer. Co. (Fine).....	4,500	
Nov. 27.—By the <i>Orinoco</i> —Mollendo:		
New York Commer. Co. (Fine).....	5,000	
F. Rosenstein & Co. (Fine).....	4,500	
Nov. 28.—By the <i>Minnetonka</i> —London:		
General Rubber Co. (Coarse).....	22,500	
Nov. 28.—By the <i>Campania</i> —Liverpool:		
Poel & Arnold (Fine).....	7,000	
Poel & Arnold (Coarse).....	13,500	
General Rubber Co. (Fine).....	78,000	
General Rubber Co. (Coarse).....	56,000	
Nov. 30.—By the <i>Brigravia</i> —Hamburg:		
New York Commer. Co. (Fine).....	35,000	
DEC. 5.—By the <i>Lucania</i> —Liverpool:		
New York Commer. Co. (Fine).....	60,000	
General Rubber Co. (Fine).....	83,000	
Poel & Arnold (Fine).....	85,000	
Poel & Arnold (Coarse).....	15,000	
New York Com. Co. (Caucho).....	5,000	
DEC. 5.—By the <i>Victorian</i> —Liverpool:		
Poel & Arnold (Coarse).....	15,500	
DEC. 7.—By the <i>Arabic</i> —Liverpool:		
New York Commer. Co. (Fine).....	45,000	
Poel & Arnold (Fine).....	18,000	
Poel & Arnold (Coarse).....	33,500	
W. L. Gough Co. (Coarse).....	2,000	
DEC. 9.—By the <i>Metaba</i> —London:		
General Rubber Co. (Coarse).....	56,000	
DEC. 14.—By the <i>Celtic</i> —Liverpool:		
Poel & Arnold (Fine).....	85,000	
General Rubber Co. (Fine).....	75,000	
New York Commer. Co. (Fine).....	15,000	
Livesey & Co. (Coarse).....	9,000	
Poel & Arnold (Coarse).....	13,000	

OTHER NEW YORK ARRIVALS.

CENTRALS.

[*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

POUNDS.		
Nov. 23.—By the <i>Advance</i> —Colon:		
Eagers & Heinkin.....	1,500	
Piza, Nephews & Co.....	1,500	3,000

Société Coloniale Anversoise.....(Belge du Haut Congo)	7,500
L. & W. Van de Velde.....(Cie. du Kasai)	84,000
Do.....	7,000
G. & C. Kreglinger.....(Lobay)	1,250
M. C. Cols.....	1,700
	215,350

IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weight in Pounds.]

NOVEMBER 27.—By the Steamer <i>Benedict</i> , from Manáos and Pará:					
IMPORTERS.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.
New York Commercial Co..	713,800	131,300	144,900	39,500	1,029,500
Poel & Arnold.....	334,600	67,100	120,000	20,900	542,600
A. T. Morse & Co.....	191,200	61,500	237,900	6,500	497,100
Hagemeyer & Brunn.....	49,300	1,400	72,000	....	122,700
Wm. E. Peck & Co.....	13,200	700	93,100	....	107,000
General Rubber Co.....	40,900	6,000	69,900	500	117,300
C. P. dos Santos.....	30,800	2,100	4,300	1,200	38,400
Edmund Reeks & Co.....	12,100	1,800	21,800	....	35,700
TOTAL.....	1,385,900	271,900	763,900	68,600	2,490,300

DECEMBER 7.—By the Steamer *Cearense*, from Manáos and Pará:

DECEMBER 17.—By the Steamer <i>Basil</i> , from Pará:					
IMPORTERS.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.
Poel & Arnold.....	148,500	25,400	94,400	11,200	279,500
A. T. Morse & Co.....	130,300	13,200	105,400	3,300	261,200
General Rubber Co.....	28,200	4,600	72,600	....	105,400
Hagemeyer & Brunn.....	56,400	400	30,400	....	87,200
Edmund Reeks & Co.....	21,100	2,800	11,900	....	35,800
C. P. dos Santos.....	7,500	....	19,100	....	26,600
Wm. E. Peck & Co.....	10,700	....	9,900	....	20,600
New York Commercial Co.....	....	....	13,500	400	13,900
TOTAL.....	411,700	46,400	357,200	14,900	830,200

[NOTE.—The steamer *Crispin* was due at New York December 28, with 495 tons rubber on board and 25 tons caucho.]

G. Amsinck & Co.....	5,500
Mecke & Co.....	3,500
Schulte & Gieschen.....	2,500
A. M. Capens Sons.....	1,500
W. R. Grace & Co.....	1,000
Andean Trading Co.....	1,000
Meyer Hecht.....	1,000
DEC. 3.—By the <i>El Valle</i> —Galveston:	
Continental-Mexican Rubber Co.....	*110,000
DEC. 3.—By the <i>Majestic</i> —London:	
Poel & Arnold.....	15,000
DEC. 4.—By the <i>Manzanillo</i> —Tampico:	
Edward Maurer.....	*90,000
Poel & Arnold.....	*65,000
New York Commercial Co.....	*65,000
Diamond Rubber Co.....	*55,000
H. Marquardt & Co.....	*6,000
DEC. 5.—By the <i>Morro Castle</i> —Frontera:	
Harburger & Stack.....	2,500
Graham, Hinkley Co.....	2,500
H. Marquardt & Co.....	3,500
A. Klipstein & Co.....	2,000
E. N. Tibbals & Co.....	1,500
DEC. 7.—By the <i>Panama</i> —Colon:	
Isaac Brandon & Bros.....	16,000
Demarest Bros. Co.....	4,000

RECLAIMED RUBBER.

Quantity and Value of Exports, by Countries.

To—	Pounds.	Value.
France.....	420,673	\$54,594
Germany.....	355,933	25,416
Italy.....	177,596	21,279
Netherlands.....	126,609	21,000
United Kingdom.....	914,046	121,588
Canada.....	1,130,130	171,132
Japan.....	22,987	3,729
Total, 1907-08.....	2,947,974	\$418,738
Total, 1906-07.....	4,550,788	\$665,109
Total, 1905-06.....	4,084,696	511,823
Total, 1904-05.....	a	522,902
Total, 1903-04.....	a	178,335
Total, 1902-03.....	a	93,265

RUBBER FLUX

No. 17. Particularly adapted to softening material for tubing machine. Almost universally used for waterproofing wire.

No. 48. For fluxing pigments in compounding. A valuable adjunct to the manufacture of moulded goods as it DOES NOT BLOW UNDER CURE.

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SOLE FACTORY:
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WALPOLE VARNISH WORKS
ELECTRIC INSULATION LABORATORY

WE ARE OFFERING SCRAP RUBBER AT LOW PRICES



Theodore Hofeller & Company

BUFFALO, N. Y.

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- ¶ Our MALTHA HYDRO-CARBON retains its pliability at zero weather.
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CHEMICAL IN THE
RUBBER TRADE

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American Vulcole Co., 161 Summer St., Boston, Mass.

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MEXICAN (Guayule) RUBBER

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Made by mechanical process only, of strictly fresh shrub.

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The recognized Standard, practically clean, containing less resin and having greater tensile strength than any other Guayule.



Prepared from high grade "Parra" Guayule, guaranteed uniform, washed and dried, ready for use. Vulcanizes easily without special compounding.

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Sole Representative of the MADERO interests in Mexico,
Largest Producers of Guayule Rubber, Operating Nine Factories.

G. Amsinck & Co.	3,500	
L. Johnson & Co.	1,500	
Eggers & Heinlein	1,500	
Hirzel, Feltman & Co.	1,500	
A. M. Capens Sons.	1,000	29,000
DEC. 7.—By <i>El Mar</i> =Galveston:		
Edward Maurer	*17,500	
DEC. 7.—By the <i>Patricia</i> =Hamburg:		
Poel & Arnold	*200,000	
New York Commer. Co.	*40,000	
W. L. Gough Co.	*11,500	*251,500
DEC. 8.—By the <i>Comus</i> =New Orleans:		
A. T. Morse & Co.	2,500	
Manhattan Rubber Mfg. Co.	1,000	3,500
DEC. 8.—By the <i>Kaiserin Augusta</i> =Hamburg:		
New York Commer. Co.	*22,500	
Livesey & Co.	5,000	27,500
DEC. 8.—By the <i>California</i> =Bordeaux:		
Robinson & Co.	11,500	
DEC. 8.—By the <i>Yamuri</i> =Tampico:		
Edward Maurer	*110,000	
Diamond Rubber Co.	*55,000	
Poel & Arnold	*34,000	*199,000
DEC. 9.—By <i>El Siglo</i> =Galveston:		
Continental-Mexican Rubber Co.	*28,500	
DEC. 10.—By the <i>Sibiria</i> =Colon:		
G. Amsinck & Co.	6,500	
Ceanz & Co.	4,500	
Streibel Bros.	2,500	
Suzarte & Whitney	1,500	
Brandon & Bros.	1,000	
A. N. Rotholz	1,000	17,000
DEC. 10.—By the <i>Voltaire</i> =Bahia:		
J. H. Rosshack & Bros.	75,000	
Poel & Arnold	50,000	
A. Hirsch & Co.	20,000	
New York Commer. Co.	20,000	165,000
DEC. 12.—By the <i>Mexico</i> =Frontera:		
E. Steiger & Co.	2,500	
H. Marquardt & Co.	2,500	
E. N. Tibbals & Co.	1,500	
Harburger & Stack	1,500	
Graham, Hinckley Co.	2,000	10,000
DEC. 14.—By the <i>Vigilancia</i> =Tampico:		
Edward Maurer	*110,000	
Diamond Rubber Co.	*90,000	
Poel & Arnold	*45,000	
Rensche & Helde	*35,000	*280,000
DEC. 16.—By the <i>Prins Joachim</i> =Colon:		
A. Rosenthal & Sons	2,500	
A. Santos & Co.	2,000	
Eggers & Heinlein	3,500	
Mecker & Co.	1,500	
A. M. Capens Sons.	1,500	
De Sola & Pardo	1,000	
A. Held	2,000	
Wessels, Kulen, Kamp Co.	1,500	15,500
DEC. 18.—By the <i>Swedish Prince</i> =Bahia:		
Poel & Arnold	17,500	
DEC. 18.—By the <i>Advance</i> =Colon:		
J. Brandon & Bros.	16,000	
A. Rosenthal & Sons	3,500	
American Trading Co.	2,500	
Henry Mann & Co.	2,000	
G. Amsinck & Co.	1,500	
Neuss, Hesslein & Co.	1,500	
Meyer & Hecht	1,000	27,000
DEC. 19.—By the <i>Bayamo</i> =Tampico:		
New York Commer. Co.	*125,000	
Edward Maurer	*85,000	
Poel & Arnold	*35,000	
H. Marquardt & Co.	5,000	*250,000

AFRICANS.

Nov. 23.—By the <i>Amerika</i> =Hamburg:		
Poel & Arnold	18,000	
George A. Alden & Co.	11,500	
W. L. Gough Co.	4,500	34,000
Nov. 23.—By the <i>Baltic</i> =Liverpool:		
George A. Alden & Co.	135,000	
W. L. Gough Co.	11,000	
Livesey & Co.	9,000	155,000
Nov. 25.—By the <i>Georgic</i> =Liverpool:		
George A. Alden & Co.	34,000	
Nov. 27.—By the <i>Zeland</i> =Antwerp:		
A. T. Morse & Co.	145,000	

Poel & Arnold	9,000	
Raw Products Co.	3,500	157,500
Nov. 27.—By the <i>Victorias</i> =Lisbon:		
General Rubber Co.	67,000	
Nov. 28.—By the <i>Amsterdam</i> =Rotterdam:		
Poel & Arnold	9,000	
Nov. 28.—By the <i>Lorraine</i> =Havre:		
George A. Alden & Co.	5,000	
Nov. 30.—By the <i>Callisto</i> =Rotterdam:		
Poel & Arnold	33,500	
Nov. 28.—By the <i>Campania</i> =Liverpool:		
Poel & Arnold	25,000	
George A. Alden & Co.	45,000	
Livesey & Co.	22,500	
Rubber Trading Co.	4,500	
General Rubber Co.	3,500	100,500
Nov. 30.—By the <i>Brisgravia</i> =Hamburg:		
A. T. Morse & Co.	34,000	
George A. Alden & Co.	22,500	
Poel & Arnold	18,000	
Muller, Schall & Co.	11,500	
General Rubber Co.	5,500	91,500
Nov. 30.—By the <i>Cedric</i> =Liverpool:		
Poel & Arnold	11,500	
Rubber Import Co.	11,500	
Livesey & Co.	2,500	25,500
DEC. 3.—By the <i>Samland</i> =Antwerp:		
A. T. Morse & Co.	58,000	
Livesey & Co.	4,500	
Rubber Trading Co.	3,500	66,000
DEC. 5.—By the <i>Lucania</i> =Liverpool:		
General Rubber Co.	11,000	
George A. Alden & Co.	8,000	
A. T. Morse & Co.	11,500	
Livesey & Co.	3,500	34,000
DEC. 7.—By the <i>Patricia</i> =Hamburg:		
George A. Alden & Co.	40,000	
General Rubber Co.	22,500	
A. T. Morse & Co.	20,000	
Livesey & Co.	11,500	105,500
W. L. Gough Co.	11,500	
DEC. 7.—By the <i>Arabic</i> =Liverpool:		
Rubber Trading Co.	15,000	
Rubber Import Co.	3,500	
Livesey & Co.	2,500	21,000
DEC. 8.—By the <i>Kaiserin Augusta</i> =Hamburg:		
A. T. Morse & Co.	15,500	
Poel & Arnold	7,000	
George A. Alden & Co.	7,000	
Livesey & Co.	10,000	
Rubber Trading Co.	6,500	
W. L. Gough Co.	3,500	49,500
DEC. 8.—By the <i>California</i> =Bordeaux:		
Livesey & Co.	20,000	
Poel & Arnold	15,000	35,000
DEC. 9.—By the <i>Statenland</i> =Rotterdam:		
Poel & Arnold	22,500	
Robinson & Co.	2,000	24,500
DEC. 9.—By the <i>Finland</i> =Antwerp:		
A. T. Morse & Co.	185,000	
George A. Alden & Co.	45,000	
Poel & Arnold	45,000	
Rubber Trading Co.	2,500	277,500
DEC. 10.—By the <i>Oceanic</i> =London:		
Livesey & Co.	20,000	
DEC. 11.—By the <i>Maris</i> =Lisbon:		
General Rubber Co.	67,000	
DEC. 14.—By the <i>Celtic</i> =Liverpool:		
A. T. Morse & Co.	22,500	
George A. Alden & Co.	15,000	
General Rubber Co.	4,500	
W. L. Gough Co.	4,500	46,500
DEC. 17.—By the <i>Vaderland</i> =Antwerp:		
A. T. Morse & Co.	13,500	

EAST INDIAN.

[*Denotes plantation rubber.]

Nov. 23.—By the <i>St. Paul</i> =London:		
Poel & Arnold	*22,500	
A. T. Morse & Co.	*5,500	
Poel & Arnold	11,500	39,500
Nov. 24.—By the <i>Massachusetts</i> =London:		
A. T. Morse & Co.	*6,500	
George A. Alden & Co.	*1,500	8,000

Nov. 25.—By the <i>Georgic</i> =Liverpool:		
Rubber Trading Co.	9,000	
Nov. 27.—By the <i>Adriatic</i> =London:		
Poel & Arnold	20,000	
Nov. 28.—By the <i>Minnetonka</i> =London:		
General Rubber Co.	*7,000	
Nov. 30.—By the <i>New York</i> =London:		
A. T. Morse & Co.	*4,500	
Nov. 30.—By the <i>Indramayo</i> =Singapore:		
O. Isenstein & Co.	17,000	
Poel & Arnold	5,500	22,500
DEC. 3.—By the <i>Kasenga</i> =Colombo:		
A. T. Morse & Co.	*18,000	
DEC. 3.—By the <i>Majestic</i> =London:		
Poel & Arnold	52,000	
DEC. 5.—By the <i>Lucania</i> =Liverpool:		
Poel & Arnold	10,000	
DEC. 7.—By the <i>Patricia</i> =Hamburg:		
Rubber Trading Co.	15,500	
DEC. 9.—By the <i>Oceanic</i> =Singapore:		
Heabler & Co.	27,000	
Winter & Smillie	11,500	
George A. Alden & Co.	11,000	49,500
DEC. 10.—By the <i>Oceanic</i> =London:		
Poel & Arnold	*16,000	
DEC. 14.—By the <i>Philadelphia</i> =London:		
Poel & Arnold	*13,500	
A. T. Morse & Co.	*6,500	*20,000
DEC. 14.—By the <i>Minnehaha</i> =London:		
New York Commer. Co.	7,000	
Muller, Schall & Co.	5,500	12,500

GUTTA-JELUTONG.

Nov. 24.—By the <i>Massachusetts</i> =London:		
W. L. Gough Co.	65,000	
Nov. 30.—By the <i>Indramayo</i> =Singapore:		
Poel & Arnold	150,000	
Heabler & Co.	165,000	
W. L. Gough Co.	55,000	370,000
DEC. 9.—By the <i>Oceanic</i> =Singapore:		
Heabler & Co.	325,000	
Poel & Arnold	215,000	
W. L. Gough Co.	200,000	
N. Joachimson	155,000	
L. C. Hopkins Co.	70,000	
Geo. A. Alden & Co.	110,000	1,075,000

GUTTA-PERCHA.

Nov. 30.—By the <i>Indramayo</i> =Singapore:		
Otto Isenstein & Co.	22,500	
DEC. 5.—By the <i>Victorian</i> =Liverpool:		
F. Stern & Co.	5,500	
BALATA.		
Nov. 27.—By the <i>Grenada</i> =Trinidad:		
Frame & Co.	1,500	
DEC. 1.—By the <i>Surinam</i> =Demerara:		
Geo. A. Alden & Co.	4,500	
DEC. 9.—By the <i>Statenland</i> =Rotterdam:		
Earle Brothers	7,000	

CUSTOM HOUSE STATISTICS.

PORT OF NEW YORK—NOVEMBER.

Imports:	Pounds.	Value.
India-rubber	8,162,641	\$5,679,801
Balata	40,160	19,972
Gutta-percha	73,491	7,680
Gutta-jelutong (Pontianak).	1,054,326	34,096
Total	9,270,618	\$5,741,549
Exports:		
India-rubber	92,433	\$49,768
Reclaimed rubber	23,445	3,265
Rubber scrap imported	1,287,330	\$95,710

BOSTON ARRIVALS.

	Pounds.
Nov. 2.—By the <i>Bosnia</i> =Hamburg:	
Poel & Arnold, Africans	23,800
Nov. 9.—By the <i>Michigan</i> =Liverpool:	
Poel & Arnold, Fine Para	10,500
Geo. A. Alden & Co., Africans	23,000
Nov. 23.—By the <i>Indramayo</i> =Singapore:	
State Rubber Co., East Indian	11,500
Geo. A. Alden & Co., Jelutong	115,000
W. L. Gough Co., Jelutong	112,000
State Rubber Co., Jelutong	87,000
	325,500

PARA EXPORTS OF INDIA-RUBBER, NOVEMBER, 1908 (IN KILOGRAMS).

NEW YORK.					EUROPE.					TOTAL.	
EXPORTERS.	Fine.	Medium.	Coarse.	Cauch.	TOTAL.	Fine.	Medium.	Coarse.	Cauch.	TOTAL.	TOTAL.
Schradner, Gruner & Co.	126,074	20,849	85,984	9,749	242,656	76,330	10,356	10,230	11,167	108,083	350,739
Adelbert H. Alden	146,363	33,006	53,237	12,214	244,820	63,902	9,159	40,427	3,120	116,608	361,428
Scholz, Hartje & Co.	28,981	17,996	77,994	330	125,301	156,941	6,691	11,243	3,085	177,960	303,261
E. Pinto Alves & Co.	45,050		95,700		140,750	40,290		1,980		42,270	183,020
J. Marques & Co.	39,950	4,250	73,590		117,790	18,870	510	11,880		31,260	149,050
Gordon & Co.	34,000	3,400	66,000		103,400	9,520	680		21,943	32,143	135,543
Pires, Teixeira & Co.	22,610		27,390		50,000	28,390		24,090		52,480	102,480
R. O. Ahlers & Co.	7,200				7,200	40,226		5,555	2,624	48,405	55,605
De Lagotellerie & Co.	16,855	510	660		18,025						16,025
R. Suarez & Co.						3,178	71	138	6,773	10,160	10,160
Guilh. Aug. Miranda Co.						10,047				10,047	10,047
Braga Sobr.						1,600			780	4,004	4,004
Itacatiara, direct						8,303			900	16,248	16,248
Manaos, direct	547,748	141,085	153,518	30,744	873,095	508,685	69,568	41,905	105,186	725,344	1,598,439
Iquitos, direct						99,620	5,622	43,511	60,238	208,991	208,991
Total, November	1,014,831	221,096	634,073	53,037	1,923,037	1,065,902	102,657	198,775	216,669	1,584,003	3,507,040
Total, October	786,408	126,769	519,474	55,540	1,488,191	1,208,196	145,315	274,066	237,675	1,865,252	3,353,443
Total, September	547,035	113,001	402,493	32,784	1,095,313	668,513	82,032	171,171	205,221	1,126,937	2,222,250
Total, August	264,560	58,192	453,971	35,035	811,758	502,857	64,119	75,252	361,418	1,003,646	1,815,404
Total, July	303,465	77,885	343,954	109,439	834,743	337,645	33,166	107,931	149,003	627,745	1,462,488



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London.

DECEMBER 11.—At to-days auction about 14½ tons Straits and 16 tons Ceylon plantation rubber was offered and the greater part found buyers at prices little changed from what prevailed a fortnight before, though meanwhile the market had been quiet and prices lower. Gow, Wilson & Stanton, Limited, report: "The highest price, 5s. 8d. [=£1.37.8] was realized for very pale crepe. Warriapola biscuits sold up to 5s. 6¼d. [=£1.38.3]. Several lots of clean rambong [*Ficus*] were well competed for, an especially fine parcel from United Serdang, realizing 4s. 8½d. [=£1.14.5]." The average price for plantation was 5s. 1¼d.

[=£1.24.2], against 3s. 7¾d. [=88.7 cents] for the corresponding sale last year.

Lewis & Peat report: "We have had a declining market during the past week. Fair sales have been made including fine hard down to 4s. 11d. [=£1.19.6] for new positions and 4s. 10¼d. for distant."

THE name of the firm known since 1903 as Meyer & Bussweiler, Limited, has been changed (with the sanction of the Board of Trade) to Arthur Meyer & Co., Limited, and the business will be continued under this style without change in other respects. Mr. Albert B. Bussweiler had not been connected with this firm for over a year and a half, and there seemed no reason for retaining his name.

Liverpool.

WILLIAM WRIGHT & Co. report [December 1]:

Fine Pará.—There has been a strong and active demand during the month, and prices—in spite of a pause in the American demand—have again advanced 6d. to 7d. per pound, closing very firm at the advance; the trade generally have bought sparingly; on the other hand all supplies, both in Manaoas and Pará, have been eagerly taken up by exporters at prices much above the parity ruling here. We anticipate, with the turn of the year, a better demand from manufacturers, which will counteract to some extent any serious decline in value owing to the arrival of heavy receipts. Closing value, hard fine, 5s. 3½d. [=£1.28¼]; island, 5s. [=£1.21½].

Antwerp.

At the monthly inscription sale on December 16, out of 533 tons of rubber offered, about 500 tons found buyers at an average decline estimated at 25 centimes per kilogram [=2.19 cents per pound]. In view of the decline in Pará rubbers since the date of brokers' estimations, the results of the Antwerp were regarded as rather favorable. The purchases were mainly for Continental account, a single firm being reported to have taken 375 tons. The offerings were mainly of the better Congo sorts. Several small lots of plantation Pará were included, totaling 9,704 pounds. One lot of Straits crepe, of 6,835 pounds, had been estimated at 16 francs per kilo [=£1.40 per pound].

RUBBER ARRIVALS FROM THE CONGO.

NOVEMBER 16.—By the Steamer *Leopoldville*:

Bunge & Co.....	(Société Générale Africaine)	kilos 69,300
Do .....	.....	41,700
Do	(Société Anversoise)	26,500
Do	(Société Abir)	4,000
Do	(Comptoir Commercial Congolais)	16,500
Do	(Comité Spécial Katanga)	4,000
Do	(Chemins de fer Grands Lacs)	2,000
Société Coloniale Anversoise.....	(Cie. du Lomani)	2,300
Do	(Cie. du Matus Congo)	685
Do	(Cie. du Kasai)	87,000
Do	(Lulonga)	40
Do .....	.....	3,900
Kroglinger	(Lobay)	12,800
Charles Dethier	(American Congo Co.)	3,500 274,225

RUBBER STATISTICS FOR NOVEMBER.

	1908.	1907.	1906.	1905.	1904.
DETAILS.					
Stocks, Oct. 31.....	662,104	723,816	621,081	554,483	710,860
Arrivals, in November ..	297,243	532,612	373,370	624,385	336,701
Congo sorts	224,772	499,441	311,315	462,907	267,778
Other sorts	72,471	33,171	62,055	161,478	68,923
Aggregating	959,347	1,256,428	994,451	1,178,868	1,074,561
Sales in November.....	355,177	241,146	279,532	543,572	435,835
Stocks, November 30..	604,170	1,015,282	714,919	635,296	611,726
Arrivals since Jan. 1..	4,515,162	4,834,929	5,135,602	5,239,553	5,182,012
Congo sorts	3,807,830	4,156,141	4,014,059	4,006,203	4,263,232
Other sorts	707,332	678,788	1,121,543	1,233,250	918,780
Sales since Jan. 1....	4,917,886	4,477,831	5,155,870	5,145,618	5,181,186

Rubber Receipts at Manaos.

DURING October and four months of the crop season, for three years [courtesy of Messrs. Scholz & Co.]:

	OCTOBER.			JULY-OCTOBER.		
FROM	1908.	1907.	1906.	1908.	1907.	1906.
Rio Purús-Acre.....	1,113	952	532	2,515	2,107	1,519
Rio Madeira	304	196	379	1,175	1,036	1,283
Rio Juruá	180	156	194	598	495	522
Rio Javary-Iquitos ..	383	508	353	866	1,034	804
Rio Solimões	152	209	77	253	355	193
Rio Negro	6	2	10	6	3	14
Total	2,138	2,023	1,545	5,443	5,040	4,425
Cauchó	214	222	176	846	784	651
Total	2,352	2,245	1,721	6,289	5,824	5,076

